

## Appendix C.

# Statistical Methodology

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### MAIL LIST MODEL

Classification analysis was performed to predict the probability that an addressee on the 1992 mail list operated a farm, and thereby separated the preliminary mail list into probable farm and probable nonfarm classes. The analysis was used to reduce the preliminary census mail list of 3.78 million records to a final mail list size of 3.55 million records. All 3.55 million addresses on the final mail list received a census of agriculture report form.

Records from the 1987 final census mail list were used to build a 1992 prediction model for the 1992 analysis. Classification and Regression Trees (CART) software analyzed characteristics of known 1987 farm and nonfarm operations to determine which were most useful in predicting farm and nonfarm classes. Record characteristics such as the source of the mail list record, number of source lists on which the record appeared, expected value of agricultural sales, and geographic location were used to separate mail list records into model groups. (Sources included the previous agriculture census mail list, the Internal Revenue Service administrative records, U.S. Department of Agriculture, and special commodity lists.) The proportion of 1987 census farm records in each model group was calculated to provide an estimate of the probability that an addressee in the group operated a farm.

After the model groups were defined, each address record on the 1992 preliminary mail list was assigned to a model group by matching record characteristics to model group characteristics. Records belonging to the groups with the highest farm probability were those more likely to be farms according to the classification tree methodology. The model, followed by analyst reviews, was used to remove 229,700 records from the preliminary mail list (those in model groups with the lowest farm probability), and thereby designated the 3.55 million records with the highest farm probability to receive the census report form. This procedure was used to obtain a more complete census enumeration of farm operations without excessive respondent burden and data collection cost.

### CENSUS SAMPLE DESIGN

Each of the 3.55 million name and address records on the census mail list was designated to receive one of three different types of census report forms. The three forms were the nonsample form, the screener form, and the

sample form. Sections 1 through 20 and 27 through 32 of the sample form are identical to sections on the nonsample form. The sample form, sections 21 through 26, contains additional questions on usage of fertilizers and chemicals, farm production expenditures, value of machinery and equipment, value of land and buildings, and farm-related income. The screener form is identical to the nonsample form with questions added in section 1 to allow quick identification of nonfarm addresses. These three different forms were used to reduce the response burden of the census, while providing reliable information on a large number of data items.

The sample form was mailed to all mail list records in Alaska, Hawaii, and Rhode Island, and to a sample of records in other States selected from the final mail list. Addresses were selected into the sample with certainty (1) if they were expected to have large total value of agricultural products sold or large acreage, (2) if they were multiunit operations (i.e., separate farms in more than one location), (3) if they had other special characteristics, or (4) if they were in a county with less than 100 farms in 1987. Other addresses in counties containing 100 to 199 farms in 1987 were systematically sampled at a rate of 1 in 2, and other addresses in counties containing 200 farms or more in 1987 were systematically sampled at a rate of 1 in 6. This differential sampling scheme was used to provide reliable data for the sample sections of the report form for all counties. When a nonsample large farm was identified during processing, a supplemental form that contained the additional sample data inquiries was mailed.

To determine which mail list records would receive the screener form, all mail list records not designated for the sample were sorted by model group farm probability as specified by the mail list model. The 412,000 mail list records in the model groups with the lowest probability of being farms and with an expected total value of agricultural product sales less than \$25,000 were designated to receive the screener report form. The remaining mail list records received the nonsample report form.

### CENSUS ESTIMATION

The 1992 Census of Agriculture used two types of statistical estimation procedures. These estimation procedures accounted for nonresponse to the data collection and for the sample data collection. These procedures are necessary because some farm operators never respond to

the census despite numerous attempts to contact them, and the estimates for the sample data are based on a sample of farm operators rather than a full enumeration.

## Whole Farm Nonresponse Estimation

A statistical estimation procedure was used to account for nonrespondent farm operators to the census. We excluded large and unique farm operations that received intensive telephone followup during census processing, assuming complete response from them. A stratified systematic sample of remaining census nonrespondents were contacted by enumerators using a computer-assisted telephone interview system. Five sample strata were defined based on expected value of sales, previous census status, and whether the record was identified by the mail list model to receive the screener report form. The nonresponse survey telephone interview was designed to provide sufficient information to determine the farm status of each record.

In situations where the nonresponse survey case could not be contacted, the contact person refused to cooperate, or when no phone number could be obtained, a screener report form was sent by certified mail.

Estimates of the proportion of census nonrespondents that operated farms were made for each stratum in the State using survey results and applied to the total number of census nonrespondents in that stratum. The number of census nonrespondents that operated farms for each county by stratum was then derived. This estimation procedure is based on the assumption that the distribution of farms in a stratum by county is the same for census nonrespondents as for census respondents.

Certain census respondent farms which exhibited "rare" commodities were designated as "ineligible" to represent census nonrespondent farms and were excluded from the nonresponse weighting operation. The procedure explained below was performed with only the eligible respondent cases: Within each stratum in a county, a noninteger nonresponse weight was calculated and assigned to each eligible respondent farm record. The noninteger nonresponse weight is the ratio of the sum of the estimated number of nonrespondent farms from the nonresponse survey and the number of eligible census respondent farms to the number of eligible census respondent farms. Stratum controls were established to ensure that this weight was never greater than 2.0. The noninteger nonresponse weight was used in the calculation of the final weight for the sample items. The noninteger nonresponse weight was randomly rounded to an integer weight of either 1 or 2 for each record for tabulating the complete count items for publication.

Table A quantifies the effect of the nonresponse estimation procedure on selected census data items. The percentages in these tables are the percents of the census values contributed by nonresponse estimation. These indicate the potential for bias in published figures resulting from nonresponse to the census. The estimates provided

in these tables do not reflect the effect of item nonresponse to individual census data items. The effect of item nonresponse is discussed in the Census Nonsampling Error section.

**Table A. Percent of State Totals Contributed by Whole Farm Nonresponse Estimation: 1992**

Item	Percent of total
Farms .....	9.1
Land in farms.....acres .....	1.7
Estimated market value of land and buildings <sup>1</sup> .....\$1,000 .....	3.8
Market value of agricultural products sold ..\$1,000 .....	2.2
Harvested cropland .....acres .....	3.0
Corn for grain or seed .....acres .....	1.3
Wheat for grain .....acres .....	1.6
Livestock and poultry inventory:	
Cattle and calves .....number .....	3.7
Hogs and pigs .....number .....	5.0
Hens and pullets of laying age .....number .....	.3

<sup>1</sup>Data are based on a sample of farms.

## Sample Estimation

Sample data estimates the population totals that would have resulted from a complete census for the items in sections 21 through 26 of the sample report form. The estimates were obtained from a ratio estimation procedure that resulted in the assignment of a weight to each respondent record containing sample items. For any given county, a sample item total was estimated by multiplying the data items for each farm in the county by the corresponding sample weight and summing over all sample records in the county.

Each respondent sample farm was assigned a sample weight for use in producing estimates for all sample items. For example, if the weight given to a sample farm had the value 6, all sample data items reported by that farm would be multiplied by 6. The weight assigned to a sample certainty farm was 1.

Other than certainty farms, within a county, the ratio estimation procedure for farms was performed in three steps using three variables. The first variable contained eight 1992 total value of agricultural production (TVP) groups. Both the second and third variables, Standard Industrial Classification (SIC) code and farm acreage, contained two groups. The three sets of groups were as follows:

TVP	SIC	Acres
\$1 to \$999	01 All crops	1 to 69
\$1,000 to \$2,499	02 All livestock	70 or more
\$2,500 to \$4,999		
\$5,000 to \$9,999		
\$10,000 to \$24,999		
\$25,000 to \$49,999		
\$50,000 to \$99,999		
\$100,000 or more		

The first step in the estimation procedure was to classify the sample records into 32 mutually exclusive initial post strata formed by the three sets of groups. The total and sample farm counts were expanded to account for nonresponse. Each cell containing sample farm records was assigned an initial sample weight equal to the ratio of the total farm count to the sample farm count. This weight was approximately equal to the inverse of the probability of selecting a farm for the census sample.

The second step in the estimation procedure was to combine, if necessary, the 32 initial post strata to increase the reliability of the ratio estimation procedure. Any stratum that contained less than 10 sample farms after nonresponse adjustment or had a weight greater than two times the mail sample rate was collapsed with another stratum. The mail sample rate was either 2 or 6, depending on whether the county had a 1 in 2 or 1 in 6 sample selection rate. The collapsing occurred within the initial 32 post strata according to a specified collapsing pattern. After the collapsing process was completed, new total farm counts and sample farm counts were computed from each of the final post strata and were used to calculate final sample weights.

The final step consisted of assigning the noninteger final post stratum weight to the sample farm records in each post stratum. The weight is the ratio of total farm count to sample farm count in each final post stratum. The noninteger sample weight, the product of the noninteger final post stratum weight and the nonresponse weight, was randomly rounded to an integer weight for tabulation. If, for example, the final weight for the farms in a particular post stratum was 7.2, then 0.2 or one-fifth of the sample farms in this post stratum were randomly assigned a weight of 8 and the remaining four-fifths received a weight of 7.

## CENSUS SAMPLING ERROR

The sample for the 1992 Census of Agriculture is only one of a large number of possible samples of the same size that could have been selected using the same sample design. Sample refers to the sample for both the nonresponse survey and the selection of farms to receive the sample report forms. Estimates derived from all the possible samples would differ from each other only by random variation.

The standard error or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The percent relative standard error of an estimate is defined as 100 times the standard error of the estimate divided by the value of the estimate.

If all possible samples were selected, each of the samples were surveyed under essentially the same conditions, and an estimate and its standard error were calculated from each sample, then:

1. Approximately 90 percent of the intervals from 1.65 standard errors below the estimate to 1.65 standard errors above the estimate would include the average value of all possible samples.
2. Approximately 95 percent of the intervals from 1.96 standard errors below the estimate to 1.96 standard errors above the estimate would include the average value of all possible samples.

The following example illustrates the computations necessary for producing a confidence interval for an estimate. Assume that the estimate of number of farms for a State is 94,382 and the relative standard error of the estimate is .1 percent (0.001). Multiplying 94,382 by 0.001 yields 94, the standard error; therefore, a 90-percent confidence interval is 94,227 to 94,537 (i.e., 94,382 plus or minus 1.65 x 94). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 90 percent of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is 94,198 to 94,566 (i.e., 94,382 plus or minus 1.96 x 94).

Census items were classified as either complete count or sample count items. Complete count items were asked of all farm operators. Examples of complete count items were land in farms, harvested cropland, livestock inventory and sales, crop acreage, quantities harvested and crop sales, land use, irrigation, government loans and payments, conservation acreage, type of organization, and operator characteristics.

Sample count items were asked only of a sample of farm operators. These items appeared only in sections 21 through 26 of the sample report form. Sample count items were included under the following section headings: commercial fertilizers, chemicals, production expenses, farm machinery and equipment, value of land and buildings, and farm-related income.

Variability, measured as percent relative standard error, in the estimates of complete count items is due only to the nonresponse survey estimation procedure. Variability in the estimates of sample count items is due to both the nonresponse survey estimation procedure and the census sample selection and estimation procedure. Thus, variability in the sample count item estimates tends to be larger than the variability in the complete count item estimates.

Table B provides the generalized reliability estimates of the estimated number of farms in a county reporting complete count and sample count items. The top half of the table shows the percent relative standard error for estimated number of farms in a county reporting a complete count item and the bottom half a sample count item. These are derived from regression equations. Separate regression equations were used for complete count items and sample count items. Each regression equation was fit with the estimated number of farms in a county reporting an item as the independent variable and the relative variance of that estimate as the dependent variable for all counties in the State. For sample count items, only data

from counties sampled at a rate of 1 in 6 are used in the estimation of the regression equation.

**Table B. Reliability Estimates for Number of Farms in a County Reporting a Complete Count Item or Sample Count Item: 1992**

Farms	Relative standard error of estimate (percent)
<b>COMPLETE COUNT ITEM</b>	
Number of farms reporting:	
25	5.2
50	3.4
75	2.6
100	2.0
150	1.2
200	.5
300	.4
500	.3
750	.3
1,000	.2
1,500	.2
2,000	.2
<b>SAMPLE COUNT ITEM</b>	
Number of farms reporting:	
25	36.4
50	25.6
75	20.8
100	17.9
150	14.4
200	12.3
300	9.8
500	7.2
750	5.4
1,000	4.2
1,500	2.5
2,000	.9

To illustrate the use of this table, assume that the estimate of the number of farms reporting hogs and pigs for a particular county, as given in county table 15, is 89. Since hogs and pigs is a complete count data item, refer to the first part of table B and use the estimated percent relative standard error of the estimate from the row with farm count equal to or just less than the estimated number of farms, 89. For this example, the percent relative standard error of the estimate comes from the row for 75 farms reporting. For sample count items, follow the same procedure using the second part of table B. For counties with fewer than 100 farms in the 1987 Census of Agriculture, variability in sample count item estimates comes only from nonresponse survey estimation procedures; thus, the estimated relative standard error for a sample count item in these counties may be obtained using the first part of table B.

Table C presents the percent relative standard error of selected State data items for all farms, and table D presents the percent relative standard error of selected State data items for all farms with sales of \$10,000 or more.

Table E presents the percent standard error for percent change in State totals from 1987 to 1992. The general

purpose of the percent change estimate is to provide a relative measure of the difference in a characteristic between censuses. The relative change for a given characteristic is defined as the ratio of the difference of the 1992 and the 1987 estimate for that characteristic to the 1987 estimate. This ratio is multiplied by 100 to obtain the percent change. The percent standard error of a percent change estimate, then, is the standard error of the ratio multiplied by 100.

Table F presents the percent relative standard error for State and county totals for selected data items. The percent relative standard error of the estimate for the same item differs among counties in the State. Reasons for this are differences among counties in (1) the total number of farms, (2) the number of large farms included with certainty, (3) the size classifications of the farms sampled, (4) the amount of nonresponse, (5) the general agricultural characteristics, and (6) the specific characteristic being measured.

## CENSUS NONSAMPLING ERROR

The accuracy of the census counts are affected jointly by sampling errors, described in the previous section, and nonsampling errors. Extensive efforts were made to compile a complete and accurate mail list for the census, to design an understandable report form with instructions, and to minimize processing errors through the use of quality control measures on specific operations. Nonsampling errors arise from incompleteness of the census mail list, duplication in the mail list, incorrect data reporting, errors in editing of reported data, and errors in imputation for missing data. These specific nonsampling errors are further discussed in this section. Evaluation studies will be conducted to measure the extent of certain nonsampling errors such as coverage error and classification error.

## Census Coverage

The main objective of the census of agriculture is to obtain a complete and accurate enumeration of U.S. farms with accurate data on all aspects of the agricultural operation. However, the high cost and availability of resources for enumeration place restrictions on feasible data collection methodologies. The past six agriculture censuses have been conducted by mail enumeration with telephone contact for selected nonrespondents. The completeness of such an enumeration thus depends to a large extent on the coverage of farm operations by the census mail list.

The past five censuses of agriculture have included approximately 91 percent of farms in the United States and approximately 96 percent of agriculture production. Complete enumeration of agricultural operations satisfying the farm definition of \$1,000 or more in agricultural sales is complicated by fluctuations in agricultural operations qualifying for enumeration, the variety of arrangements under which farms are operated, the multiplicity of names used

by an operation, the number of operations in which an operator participates, the accuracy of data reporting, and other factors. A new mail list is compiled for each census because no current single list of agricultural operations is comprehensive.

An evaluation of census coverage has been conducted for each census of agriculture since 1945. The evaluation provides estimates of the completeness of census farm count and major census data items. In addition, the evaluation helps to identify problems in the census enumeration and provide information that can form the basis for improvements. The results of the 1992 Coverage Evaluation program will be published in volume 2, Subject Series (Part 2): Coverage Evaluation.

The evaluation of coverage for the 1992 census was designed to measure four components of error in the census mail list and in farm classification. Mail list error includes two components of error, a measurement of farms not on the census mail list (undercount) and a measurement of farms enumerated more than once in the census (overcount). Classification error includes two components of error, a measurement of farms classified as nonfarms in the census (undercount) and of nonfarms classified as farms in the census (overcount). Classification error arises from reporting and processing errors. Mail list undercount dominates all coverage errors. Net coverage error is defined as the difference between undercounted and overcounted farms. Measurements of these errors, as well as a description of the complete coverage program, will be available in the Coverage Evaluation report.

## **Mail List Coverage**

A major problem with mail enumeration for the census of agriculture is the difficulty encountered in compiling a complete mail list. The percentage of farms included on the census mail list varies considerably by State. Several reasons have contributed to farm operator names not being included on the census mail list—the operation may have been started after the mail list was developed, the operation may be so small as not to appear in any of the agriculture-related source lists used in compiling the census list, or the operation may have been falsely classified as a nonfarm prior to mailout. A large proportion of the farms not included on the mail list are small in both acres and sales of agricultural products.

The 1992 Census of Agriculture Coverage Evaluation used the area segment sample of the 1992 June Agricultural Survey (JAS) of the National Agricultural Statistical Service (NASS) to estimate farms not on the census mail list. The Census Bureau contracted with NASS to augment the JAS data collection. The survey data collected by NASS will be protected under the confidentiality of title 13, U.S. Code. These JAS survey records were matched to the census mail list. Records that did not match were mailed a census of agriculture report form to estimate mail list

coverage. Estimates of farms not on the census mail list are computed using a capture-recapture dual frame estimator which will be described in the Coverage Evaluation report mentioned earlier.

Table G provides coverage evaluation estimates for one component of coverage error associated with the census of agriculture; that is, the error due to farms not on the census mail list. Also provided are estimates of selected characteristics of farms not on the mail list, estimates of characteristics of farms not on the mail list as a percentage of total farms in the State, and the percent relative standard error associated with each estimate. The estimate of total farms in the State is based on census farm count plus the estimated number of farms not on the census mail list. This estimate of total farms in the State was not adjusted for the components of error associated with classification and list duplication error. Estimates of these errors will be made at the regional, rather than the State level, and will be provided in the Coverage Evaluation report mentioned earlier.

## **Respondent and Enumerator Error**

Incorrect or incomplete responses to the mailed census report form or to the questions posed by a telephone enumerator introduce error into the census data. Such incorrect information can lead, in some cases, to incorrect classification of farms. This type of reporting error is measured by the Classification Error Survey discussed later in this section. To reduce all types of reporting error, detailed instructions for completing the report form were provided to each addressee. Questions were phrased as clearly as possible based on tests of the census report form and each respondent's answers were checked for completeness and consistency.

## **Item Nonresponse**

As information flows from data collection to tabulation, various types of item nonresponses are identified on the report forms. Nonresponse to particular questions on the report form that logically should be present may create a type of nonsampling error in both complete count and sample count data. When information from reporting farms is used to edit or impute for item nonresponse, the data may be biased due to characteristics of the nonreporting respondents differing from those reporting the item. Any attempt to correct the data items may not completely reflect this difference either at the element level (individual farm operation) or on the average.

## **Processing Error**

All phases of processing for each report form are sources for the introduction of nonsampling error. The processing of the report forms includes clerical screening for farm activity, computerized check-in of report forms and follow-up of nonrespondents, keying and transmittal of

completed report forms, computerized editing of inconsistent and missing data, review and correction of individual records referred from the computer edit, review and correction of tabulated data, and electronic data processing. These operations undergo a number of quality control checks to ensure as accurate an application as possible, yet some errors are not detected and corrected.

## Classification Error

An evaluation study of classification errors was conducted in the 1992 Census of Agriculture as part of the census coverage evaluation program. A sample of census mail list respondents was selected, and these addresses were reenumerated to determine whether they were a farm or nonfarm. A farm status determination was made based on the evaluation report form and compared with the census farm status which was based on the data reported on the report form. Differences in status were reconciled.

In past censuses, the proportion of farms undercounted due to classification errors was higher for farms with small values of sales. For the 1987 census, the classification error rate was higher for (1) farms with small values of sales, (2) farms with a small number of acres, (3) full-owner farms than part-owner or tenant farms, (4) operators with principal occupation other than farming, and (5) males than females. Results from the 1992 Classification Error Survey will be published in the Coverage Evaluation report.

## EDITING DATA AND IMPUTATION FOR ITEM NONRESPONSE

The Census of Agriculture Complex Edit and Imputation System performs the following functions:

- Ensuring reasonable relationships between/among data items, values for various sizes of farms, and combinations of commodities.
- Ensuring necessary consistencies are present. There are more than 70 distinct consistency requirements.
- Ensuring geographic, legal, and physical constraints are met.

The system must perform these and similar functions for 900 data keycodes for sample records and 850 data keycodes for nonsample records.

For the 1992 Census of Agriculture, as in previous censuses, all reported data were keyed and then edited by computer. The edits were used to determine whether the reports met the minimum criteria to be counted as farms in the census. The complex edit and imputation system provided the basis for deciding to accept, impute (supply), delete, or alter the reported value for each data record item.

Whenever possible, edit imputations, deletions, and changes were based on component or related data on the respondent's report form. For some items, such as operator characteristics, data from the previous census were used when available. Values for other missing or unacceptable reported data items were calculated based on reported quantities and known price parameters.

When these and similar methods were not available and values had to be supplied, the imputation process used information reported for another farm operation in a geographically adjacent area with characteristics similar to those of the farm operation with incomplete data. For example, a farm operation that reported acres of corn harvested, but did not report quantity of corn harvested, was assigned the same bushels of corn per acre harvested as that of the last nearby farm with similar characteristics that reported acceptable yields during that particular execution of the computer edit. The imputation for missing items in each section of the report form was conducted separately; thus, assigned values for one operation could come from more than one respondent.

Prior to the imputation operation, a set of default values and relationships were assigned to the possible imputation variables. The relationships and values varied depending on the item being imputed. For example, different default values were assigned for several standard industrial classification and total value of sales categories when imputing hired farm labor expenses. These values and item relationships for the possible imputation variables were stored in the computer in a series of matrices.

Each execution of the computer edit consisted of records from only one State. The computer records were sorted by reported State and county. For a given execution of the edit, the stored entries in the various matrices were retained in memory only until a succeeding record having acceptable characteristics for some sections of the report form was processed by the computer. Then the acceptable responses of the succeeding operation replaced those previously stored. When a record processed through the edit had unreported or unacceptable data, the record was assigned the last acceptable ratio or response from an operation with a similar set of characteristics. Once each execution of the computer edit for a State was completed, the possible imputation variables were reset to the default values and relationships for subsequent executions.

After the initial computer edit, keyed reports not meeting the census farm definition were reviewed to ensure that the data were keyed correctly. Edit referrals were generated for about 25 percent of the reports included as farms; they were reviewed for keying accuracy to ensure that the computer edit actions were correct. If the results of the computer edit were not acceptable, corrections were made and the record was reedited.

**Table C. Reliability Estimates of State Totals for All Farms: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)	
<b>F FARMS AND LAND IN FARMS</b>						
Farms ----- number	31 892	1.0				
Land in farms ----- acres	17 609 497	.2				
Average size of farm ----- acres	552	1.0				
<b>M MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>						
Total sales (see text) ----- farms	31 892	1.0				
\$1,000-----	2 292 973	.3				
Average per farm ----- dollars	71 898	1.0				
Farms by value of sales:						
Less than \$1,000 (see text) ----- farms	5 727	1.2				
\$1,000-----	1 781	1.3				
\$1,000 to \$2,499 ----- farms	5 763	1.2				
\$1,000-----	9 395	1.2				
\$2,500 to \$4,999 ----- farms	4 569	1.3				
\$1,000-----	16 129	1.3				
\$5,000 to \$9,999 ----- farms	3 734	1.3				
\$1,000-----	26 216	1.3				
\$10,000 to \$19,999 ----- farms	2 946	1.3				
\$1,000-----	41 312	1.3				
\$20,000 to \$24,999 ----- farms	855	1.5				
\$1,000-----	18 953	1.5				
\$25,000 to \$39,999 ----- farms	1 499	1.5				
\$1,000-----	47 116	1.5				
\$40,000 to \$49,999 ----- farms	684	1.6				
\$1,000-----	30 142	1.6				
\$50,000 to \$99,999 ----- farms	1 940	1.3				
\$1,000-----	137 533	1.3				
\$100,000 to \$249,999 ----- farms	2 155	.7				
\$1,000-----	346 398	.6				
\$250,000 to \$499,999 ----- farms	1 118	—				
\$1,000-----	390 906	—				
\$500,000 or more ----- farms	902	—				
\$1,000-----	1 227 094	—				
Sales by commodity or commodity group:						
Crops, including nursery and greenhouse crops ----- farms	14 822	.9				
\$1,000-----	1 452 213	.3				
Grains ----- farms	3 528	.8				
\$1,000-----	205 724	.3				
Corn for grain ----- farms	112	1.6				
\$1,000-----	6 117	.5				
Wheat ----- farms	2 996	.8				
\$1,000-----	173 625	.3				
Soybeans ----- farms	—	—				
Sorghum for grain ----- farms	—	—				
Barley ----- farms	882	1.0				
\$1,000-----	16 767	.6				
Oats ----- farms	613	1.2				
\$1,000-----	4 291	1.2				
Other grains ----- farms	215	1.3				
\$1,000-----	4 924	1.0				
Cotton and cottonseed ----- farms	—	—				
\$1,000-----	—	—				
Tobacco ----- farms	—	—				
\$1,000-----	—	—				
Hay, silage, and field seeds ----- farms	7 277	1.0				
\$1,000-----	269 373	.4				
Vegetables, sweet corn, and melons ----- farms	1 508	.8				
\$1,000-----	174 208	.2				
Fruits, nuts, and berries ----- farms	4 144	1.0				
\$1,000-----	248 216	.5				
Nursery and greenhouse crops ----- farms	2 309	.8				
\$1,000-----	364 343	.1				
Other crops ----- farms	913	.8				
\$1,000-----	190 348	.2				
Livestock, poultry, and their products ----- farms	20 309	1.0				
\$1,000-----	840 760	.3				
Poultry and poultry products ----- farms	1 345	1.4				
\$1,000-----	84 901	.1				
Dairy products ----- farms	813	.9				
\$1,000-----	208 762	.2				
Cattle and calves ----- farms	15 608	1.0				
\$1,000-----	483 601	.3				
Hogs and pigs ----- farms	1 463	1.4				
\$1,000-----	9 088	1.2				
Sheep, lambs, and wool ----- farms	3 648	1.1				
\$1,000-----	27 011	.5				
Other livestock and livestock products (see text) ----- farms	3 715	1.2				
\$1,000-----	27 396	1.3				
Value of agricultural products sold directly to individuals for human consumption (see text) ----- farms	4 263	1.1				
\$1,000-----	10 323	1.0				
<b>F FARM PRODUCTION EXPENSES<sup>1</sup></b>						
Total farm production expenses ----- farms	31 875	1.1				
\$1,000-----	1 881 731	.4				
Average per farm ----- dollars	59 035	1.2				
Livestock and poultry purchased ----- farms	10 937	1.9				
\$1,000-----	160 847	1.3				
Feed for livestock and poultry ----- farms	18 983	1.4				
\$1,000-----	230 557	.9				
Commercially mixed formula feeds ----- farms	6 929	2.5				
\$1,000-----	82 108	1.0				
Seeds, bulbs, plants, and trees ----- farms	8 422	1.9				
\$1,000-----	51 855	.8				
Commercial fertilizer ----- farms	16 616	1.4				
\$1,000-----	119 158	.9				
Agricultural chemicals ----- farms	23 952	1.2				
\$1,000-----	104 042	1.0				
Petroleum products ----- farms	28 479	1.1				
\$1,000-----	80 192	.8				
Electricity ----- farms	22 431	1.3				
\$1,000-----	45 048	1.0				
Hired farm labor ----- farms	11 480	1.7				
\$1,000-----	367 047	.5				
Contract labor ----- farms	4 850	2.8				
\$1,000-----	31 329	3.2				
Repair and maintenance ----- farms	25 574	1.2				
\$1,000-----	121 370	.8				
Customwork, machine hire, and rental of machinery and equipment ----- farms	9 015	2.0				
\$1,000-----	38 704	2.0				
Interest expense ----- farms	12 384	1.7				
\$1,000-----	133 197	1.2				
Secured by real estate ----- farms	9 408	2.0				
\$1,000-----	90 004	1.6				
Not secured by real estate ----- farms	5 971	2.3				
\$1,000-----	43 193	1.1				
Cash rent ----- farms	6 069	2.3				
\$1,000-----	85 134	1.3				
Property taxes ----- farms	29 510	1.1				
\$1,000-----	68 203	1.1				
All other farm production expenses ----- farms	28 623	1.1				
\$1,000-----	245 048	.8				
<b>NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>						
All farms ----- number	31 875	1.1				
\$1,000-----	398 979	1.2				
Average per farm ----- dollars	12 517	1.6				
Farms with net gains <sup>2</sup> ----- number	12 338	1.6				
\$1,000-----	527 951	.7				
Average net gain ----- dollars	42 791	1.7				
Farms with net losses ----- number	19 537	1.4				
\$1,000-----	128 972	1.9				
Average net loss ----- dollars	6 601	2.3				
<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>						
Government payments ----- farms	4 350	.8				
\$1,000-----	51 655	.3				
Other farm-related income <sup>1</sup> ----- farms	8 740	2.2				
\$1,000-----	70 926	3.5				
Customwork and other agricultural services ----- farms	2 729	3.9				
\$1,000-----	20 765	7.3				
Gross cash rent or share payments ----- farms	3 599	3.5				
\$1,000-----	17 257</					

**Table C. Reliability Estimates of State Totals for All Farms: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)		
<b>LAND IN FARMS ACCORDING TO USE</b>							
Total cropland	farms--	26 508	All operators	farms--	31 892		
	acres--	5 037 764		acres--	17 609 497		
Harvested cropland	farms--	20 743	Full owners	farms--	22 152		
	acres--	2 823 972		acres--	6 722 566		
Farms by acres harvested:			Part owners	farms--	7 004		
1 to 9 acres	farms--	6 966		acres--	8 710 418		
	acres--	26 937	Tenants	farms--	2 736		
10 to 19 acres	farms--	3 154		acres--	2 176 513		
	acres--	41 552					
20 to 29 acres	farms--	1 824	<b>OWNED AND RENTED LAND</b>				
	acres--	41 727	Land owned	farms--	29 248		
30 to 49 acres	farms--	2 031		acres--	12 551 762		
	acres--	74 304	Owned land in farms	farms--	29 156		
50 to 99 acres	farms--	2 077		acres--	11 029 722		
	acres--	143 151	Land rented or leased from others	farms--	9 822		
100 to 199 acres	farms--	1 668		acres--	6 701 591		
	acres--	227 727	Rented or leased land in farms	landlords--	24 901		
200 to 499 acres	farms--	1 618		farms--	9 740		
	acres--	502 952	Rented or leased to others	farms--	6 579 775		
500 to 999 acres	farms--	793		acres--			
	acres--	551 721	Land rented or leased from others	farms--	3 990		
1,000 acres or more	farms--	612		acres--	1 643 856		
	acres--	1 213 901					
Cropland:			<b>OPERATOR CHARACTERISTICS</b>				
Pasture or grazing only	farms--	13 307	Operators by place of residence:				
	acres--	817 735	On farm operated		26 714		
Other cropland	farms--	6 682			3 730		
	acres--	1 396 057	Not on farm operated		1 448		
Total woodland	farms--	10 367					
	acres--	1 830 158	Operators by principal occupation:				
Pastureland and rangeland other than cropland and			Farming		15 306		
woodland pastured	farms--	8 621			16 586		
	acres--	10 383 818	Other				
Land in house lots, ponds, roads, wasteland, etc.	farms--	19 078	Operators by days worked off farm:				
	acres--	357 757	Any		18 419		
Irrigated land	farms--	15 002	200 days or more		12 089		
	acres--	1 622 235					
Acres irrigated:			Operators by sex:				
1 to 9 acres	farms--	5 551	Male	farms--	27 967		
	acres--	20 533		acres--	16 437 388		
10 to 49 acres	farms--	4 627	Female	farms--	3 925		
	acres--	106 309		acres--	1 172 109		
50 to 99 acres	farms--	1 574	Average age of operator	years--	53.4		
	acres--	109 471			1.4		
100 to 199 acres	farms--	1 361	INDIVIDUAL OR FAMILY (SOLE PROPRIETORSHIP)				
	acres--	187 701	Individual or family (sole proprietorship)	farms--	27 506		
200 to 499 acres	farms--	1 209		acres--	9 941 065		
	acres--	370 806	Partnership	farms--	2 481		
500 to 999 acres	farms--	.6		acres--	3 172 316		
	acres--	429	Corporation:				
1,000 acres or more	farms--	.6	Family held	farms--	1 477		
	acres--	289 680		acres--	3 176 873		
Harvested cropland irrigated	farms--	11 756	More than 10 stockholders	farms--	29		
	acres--	1 237 787	10 or less stockholders	farms--	1 448		
Pasture and other land irrigated	farms--	6 090	Other than family held	farms--	195		
	acres--	384 448		acres--	322 989		
Land under federal acreage reduction programs:			More than 10 stockholders	farms--	25		
Diverted under annual commodity programs	farms--	1 504	10 or less stockholders	farms--	170		
	acres--	43 894	Other — cooperative, estate or trust, institutional, etc.	farms--	233		
Conservation Reserve or Wetlands Reserve Programs	farms--	1 123		acres--	996 254		
	acres--	409 888					
<b>VALUE OF LAND AND BUILDINGS<sup>1</sup></b>							
Estimated market value of land and buildings	farms--	31 875	<b>Hired Farm Labor</b>				
\$1,000--		1.1	Hired workers by days worked:				
Average per farm	dollars--	623 647	150 days or more	farms--	5 012		
Average per acre	dollars--	370 938		workers--	21 060		
		663	Less than 150 days	farms--	10 657		
		1.0		workers--	99 646		
		1.5					
		1.4					
<b>VALUE OF MACHINERY AND EQUIPMENT<sup>1</sup></b>							
Estimated market value of all machinery and equipment	farms--	31 771	<b>INJURIES AND DEATHS</b>				
\$1,000--		1.1	Farm-related injuries:				
Average per farm	dollars--	1 532 094	Operator and family members	farms--	247		
		48 223		number--	280		
		1.0	Hired workers	farms--	602		
		1.5		number--	1 342		
		1.4					
		1.1					
<b>AGRICULTURAL CHEMICALS<sup>1</sup></b>							
Commercial fertilizer	farms--	16 515	Farm-related deaths:				
acres on which used--		2 426 366	Operator and family members	farms--	6		
		1.4		number--	6		
		1.1	Hired workers	farms--	4		
				number--	4		

See footnotes at end of table.

## C-8 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table C. Reliability Estimates of State Totals for All Farms: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains of less than \$1,000.

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)			
<b>F FARMS AND LAND IN FARMS</b>								
Farms ----- number	12 099	.9	Total farm production expenses ----- farms	12 117	1.1			
Land in farms ----- acres	15 599	.1	\$1,000-----	1 760 394	.4			
Average size of farm ----- acres	876	.9	Average per farm ----- dollars	145 283	1.2			
	1 289		Livestock and poultry purchased ----- farms	4 043	2.6			
<b>M MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>			\$1,000-----	149 911	1.3			
Total sales (see text) ----- farms	12 099	.9	Feed for livestock and poultry ----- farms	6 426	1.9			
\$1,000-----	2 239	.2	\$1,000-----	217 286	.9			
Average per farm ----- dollars	453	1.0	Commercially mixed formula feeds ----- farms	2 619	3.5			
	185 094		\$1,000-----	79 803	1.0			
Farms by value of sales:			Seeds, bulbs, plants, and trees ----- farms	5 365	2.0			
\$10,000 to \$19,999 ----- farms	2 946	1.3	\$1,000-----	50 922	.8			
\$1,000-----	41 312	1.3	Commercial fertilizer ----- farms	8 674	1.5			
\$20,000 to \$24,999 ----- farms	855	1.5	\$1,000-----	115 560	.9			
\$1,000-----	18 953	1.5	Agricultural chemicals ----- farms	9 292	1.4			
\$25,000 to \$39,999 ----- farms	1 499	1.5	\$1,000-----	98 454	.9			
\$1,000-----	47 116	1.5	Petroleum products ----- farms	11 781	1.1			
\$40,000 to \$49,999 ----- farms	684	1.6	\$1,000-----	72 706	.8			
\$1,000-----	30 142	1.6	Electricity ----- farms	10 189	1.4			
\$50,000 to \$99,999 ----- farms	1 940	1.3	\$1,000-----	41 462	1.0			
\$1,000-----	137 533	1.3	Hired farm labor ----- farms	7 052	1.7			
\$100,000 to \$249,999 ----- farms	2 155	.7	\$1,000-----	363 647	.5			
\$1,000-----	346 398	.6	Contract labor ----- farms	2 847	3.3			
\$250,000 to \$499,999 ----- farms	1 118	—	\$1,000-----	29 699	3.3			
\$1,000-----	390 906	—	Repair and maintenance ----- farms	11 109	1.2			
\$500,000 or more ----- farms	902	—	\$1,000-----	107 638	.8			
\$1,000-----	1 227 094	—	Customwork, machine hire, and rental of machinery and equipment ----- farms	4 940	2.3			
Sales by commodity or commodity group:			\$1,000-----	36 616	2.1			
Crops, including nursery and greenhouse crops ----- farms	8 030	.9	Interest expense ----- farms	7 275	1.8			
\$1,000-----	1 435 124	.2	\$1,000-----	116 872	1.2			
Grains ----- farms	3 022	.8	Secured by real estate ----- farms	5 079	2.2			
\$1,000-----	204 183	.3	\$1,000-----	75 143	1.7			
Corn for grain ----- farms	105	1.6	Not secured by real estate ----- farms	4 510	2.4			
\$1,000-----	6 099	.5	\$1,000-----	41 728	1.1			
Wheat ----- farms	2 652	.7						
\$1,000-----	172 527	.3						
Soybeans ----- farms	—	—						
\$1,000-----	—	—						
Sorghum for grain ----- farms	—	—	<b>NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>					
\$1,000-----	—	—	All farms ----- number	12 117	1.1			
Barley ----- farms	809	1.0	\$1,000-----	466 885	.9			
\$1,000-----	16 593	.6	Average per farm ----- dollars	38 531	1.4			
Oats ----- farms	480	1.3						
\$1,000-----	4 069	1.2						
Other grains ----- farms	197	1.3						
\$1,000-----	4 896	1.0						
Cotton and cottonseed ----- farms	—	—	Farms with net gains <sup>2</sup> ----- number	8 645	1.6			
\$1,000-----	—	—	\$1,000-----	522 323	.7			
Tobacco ----- farms	—	—	dollars	60 419	1.7			
\$1,000-----	—	—						
Hay, silage, and field seeds ----- farms	3 610	1.1	Farms with net losses ----- number	3 472	3.1			
\$1,000-----	262 746	.4	\$1,000-----	55 438	2.7			
Vegetables, sweet corn, and melons ----- farms	1 091	.8	dollars	15 967	4.2			
\$1,000-----	173 364	.2						
Fruits, nuts, and berries ----- farms	2 195	1.1						
\$1,000-----	243 560	.5						
Nursery and greenhouse crops ----- farms	1 374	.8	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>					
\$1,000-----	361 129	.1	Government payments ----- farms	3 146	.7			
Other crops ----- farms	841	.8	\$1,000-----	46 152	.2			
\$1,000-----	190 142	.2	Other farm-related income <sup>1</sup> ----- farms	3 980	2.8			
Livestock, poultry, and their products ----- farms	7 125	1.0	\$1,000-----	48 866	3.6			
\$1,000-----	804 329	.3	Customwork and other agricultural services ----- farms	1 475	5.0			
Poultry and poultry products ----- farms	237	1.6	\$1,000-----	18 503	8.1			
\$1,000-----	84 509	.1	Gross cash rent or share payments ----- farms	1 524	5.1			
Dairy products ----- farms	710	.9	\$1,000-----	10 772	6.0			
\$1,000-----	208 544	.2	Forest products and Christmas trees ----- farms	649	6.8			
Cattle and calves ----- farms	6 120	.9	\$1,000-----	14 505	4.3			
\$1,000-----	457 102	.3	Other farm-related income sources ----- farms	1 492	4.6			
Hogs and pigs ----- farms	372	1.6	\$1,000-----	5 087	3.3			
\$1,000-----	7 863	1.4						
Sheep, lambs, and wool ----- farms	1 112	1.3						
\$1,000-----	23 681	.4						
Other livestock and livestock products (see text) ----- farms	1 075	1.3	<b>COMMODITY CREDIT CORPORATION LOANS</b>					
\$1,000-----	22 630	1.4	Total ----- farms	285	1.0			
Value of agricultural products sold directly to individuals for human consumption (see text) ----- farms	911	1.3	\$1,000-----	7 068	.6			
	6 556	1.1						

See footnotes at end of table.

## C-10 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)				
<b>LAND IN FARMS ACCORDING TO USE</b>									
Total cropland	farms--	11 053	.9	Farms by type of organization					
	acres--	4 442 844	.3	Individual or family (sole proprietorship) farms--	8 925	1.0			
Harvested cropland	farms--	9 956	.9	acres--	8 551 395	.2			
	acres--	2 663 733	.3	Partnership farms--	1 653	1.0			
Cropland:				acres--	2 975 601	.1			
Pasture or grazing only	farms--	4 506	1.1	Corporation:					
	acres--	552 491	.9	Family held farms--	1 268	.6			
Total woodland	farms--	3 520	.9	More than 10 stockholders farms--	3 069 868	(L)			
	acres--	1 437 996	.2	10 or less stockholders farms--	28	3.4			
Pastureland and rangeland other than cropland and	farms--	3 795	.8	Other than family held farms--	1 240	.6			
woodland pastured	acres--	9 440 690	.1	More than 10 stockholders farms--	150	1.7			
Land in house lots, ponds, roads, wasteland, etc.	farms--	6 861	1.0	10 or less stockholders farms--	315 785	.2			
Irrigated land	farms--	278 346	.5	Other—cooperative, estate or trust, institutional, etc. farms--	18	5.9			
	acres--	7 640	1.0	acres--	132	1.7			
Harvested cropland irrigated	farms--	1 498 885	.5	Hired farm labor					
	acres--	6 778	.4	Hired workers by days worked:					
Pasture and other land irrigated	farms--	1 182 290	1.2	150 days or more farms--	3 843	9.4			
	acres--	2 482	.7	workers--	19 829	2.8			
Land under federal acreage reduction programs:			Less than 150 days farms--	6 299	13.7				
Diverted under annual commodity programs	farms--	1 437	.7	workers--	88 438	7.5			
	acres--	43 452	.2	<b>INJURIES AND DEATHS</b>					
Conservation Reserve or Wetlands Reserve	farms--	812	.7	Farm-related injuries:					
Programs	acres--	314 047	.2	Operator and family members farms--	133	1.5			
<b>VALUE OF LAND AND BUILDINGS<sup>1</sup></b>									
Estimated market value of land and buildings	farms--	12 117	1.1	number--	155	1.5			
\$1,000--		8 534 219	1.0	Hired workers farms--	561	.6			
Average per farm	dollars--	704 318	1.5	number--	1 288	.3			
Average per acre	dollars--	543	1.5	<b>FARM BY SIZE</b>					
<b>VALUE OF MACHINERY AND EQUIPMENT<sup>1</sup></b>									
Estimated market value of all machinery and	farms--	12 117	1.1	1 to 9 acres	851	1.3			
equipment	\$1,000--	1 170 194	1.1	10 to 49 acres	2 190	1.3			
Average per farm	dollars--	96 575	1.5	50 to 69 acres	628	1.5			
<b>AGRICULTURAL CHEMICALS<sup>1</sup></b>									
Commercial fertilizer	farms--	8 648	1.5	70 to 99 acres	833	1.4			
acres on which used--		2 320 760	1.1	100 to 139 acres	830	1.5			
<b>TENURE OF OPERATOR</b>									
All operators	farms--	12 099	.9	140 to 179 acres	704	1.6			
	acres--	15 599 876	.1	180 to 219 acres	535	1.7			
Full owners	farms--	5 956	1.1	220 to 259 acres	384	1.8			
	acres--	5 470 336	.2	260 to 499 acres	1 491	1.3			
Part owners	farms--	4 543	.8	500 to 999 acres	1 213	1.2			
	acres--	8 162 520	.1	1,000 to 1,999 acres	861	—			
Tenants	farms--	1 600	1.2	2,000 acres or more	1 579	—			
	acres--	1 967 020		<b>FARMS BY STANDARD INDUSTRIAL CLASSIFICATION</b>					
<b>OWNED AND RENTED LAND</b>									
Land owned	farms--	10 548	.9	Cash grains (011)	1 075	.9			
	acres--	10 758 649	.2	Field crops, except cash grains (013)	1 784	1.2			
Owned land in farms	farms--	10 499	.9	Vegetables and melons (016)	560	1.1			
	acres--	9 522 614	.2	Fruits and tree nuts (017)	1 750	1.3			
Land rented or leased from others	farms--	6 186	.8	Horticultural specialties (018)	1 072	.8			
	acres--	6 176 763	.1	General farms, primarily crop (019)	423	1.2			
Rented or leased land in farms	landlords--	19 328	.6	Livestock, except dairy, poultry, and animal specialties (021)	4 283	1.0			
	farms--	6 143	.8	Dairy farms (024)	625	.8			
Land rented or leased to others	farms--	1 728	1.1	Poultry and eggs (025)	95	1.5			
	acres--	1 335 536	.8	Animal specialties (027)	405	1.9			
<b>OPERATOR CHARACTERISTICS</b>									
Operators by place of residence:				General farms, primarily livestock and animal specialties (029)	27	5.1			
On farm operated		9 629	.9	<b>LIVESTOCK</b>					
Not on farm operated		1 924	1.2	Cattle and calves inventory farms--	6 128	.9			
Not reported		546	1.1	number--	1 302 210	.4			
Operators by principal occupation:				Beef cows farms--	4 764	1.0			
Farming		9 092	.9	number--	554 573	.4			
Other		3 007	1.2	Milk cows farms--	982	.9			
Operators by days worked off farm:				number--	97 948	.3			
Any		4 866	1.1	Cattle and calves sold farms--	6 120	.9			
200 days or more		2 408	1.2	number--	835 974	.4			
Operators by sex:				\$1,000--	457 102	.3			
Male		11 102	.9	Hogs and pigs inventory farms--	406	1.6			
Female		997	1.2	number--	48 766	1.8			
Average age of operator	years--	52.8	1.3	Hogs and pigs sold farms--	372	1.6			
				number--	84 107	1.5			
				\$1,000--	7 863	1.4			
				Sheep and lambs of all ages inventory farms--	1 092	1.3			
				number--	308 103	.7			
				Sheep and lambs sold farms--	1 071	1.3			
				number--	372 282	.5			
				Horses and ponies inventory farms--	2 886	1.0			
				number--	20 531	1.0			
				Horses and ponies sold farms--	702	1.3			
				number--	3 578	2.0			

See footnotes at end of table.

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>POULTRY</b>					
Chickens 3 months old or older inventory	farms --	409	Barley for grain	farms --	996
number	number	.1	acres --	124	.9
Hens and pullets of laying age	farms --	403	bushels --	991	.5
number	number	.1	bushels	7	.6
Broilers and other meat-type chickens sold	farms --	89	Oats for grain	farms --	613
number	number	.2	acres --	34	1.2
CROPS HARVESTED			bushels --	611	1.1
Corn for grain or seed	farms --	129	Irish potatoes	farms --	2 755
acres	acres	.5	acres --	821	1.2
bushels	bushels	.4	bushels --	309	1.0
Corn for silage or green chop	farms --	359	Sugar beets for sugar	farms --	48
acres	acres	1.1	acres --	813	.3
tons	tons	.7	cwt --	144	1.2
Wheat for grain	farms --	517	Hay—alfalfa, other tame, small grain, wild, grass silage,	farms --	22
acres	acres	.7	green chop, etc. (see text)	105	.2
bushels	bushels	.2	acres --	668	.4
		.3	tons, dry --	530	.5
			Vegetables harvested for sale (see text)	farms --	384
			acres --	5 073	1.0
			farms --	742	.6
			Land in orchards	farms --	2 046
			acres --	647	.6
			acres	1 092	.8
			farms	146	.2
			acres	842	.2
			bushels	1 628	1.1
			acres	83	.7
				539	

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains of less than \$1,000.

**Table E. Reliability Estimates of Percent Change in State Totals: 1987 to 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of \$10,000 or more	
	Percent change from 1987 to 1992	Standard error of estimate	Percent change from 1987 to 1992	Standard error of estimate
Farms-----	number--	-.4	1.3	3.3
Land in farms -----	acres--	-1.1	.2	1.0
Average size of farm -----	acres--	-.7	1.3	-2.3
Estimated market value of land and buildings <sup>1</sup> :	dollars--			
Average per farm -----	dollars--	23.7	2.2	18.8
Average per acre -----	dollars--	22.3	2.4	19.9
Estimated market value of all machinery and equipment <sup>1</sup> :	dollars--			
Average per farm -----	dollars--	27.0	2.4	18.8
Farms by size:				
1 to 9 acres -----	farms--	15.4	2.1	34.2
10 to 49 acres -----	acres--	-1.9	1.6	15.8
50 to 179 acres -----	farms--	-6.5	1.4	-5
180 to 499 acres -----	acres--	-6.3	1.4	-2.8
500 to 999 acres -----	farms--	-3.3	1.4	-3.4
1,000 to 1,999 acres -----	acres--	-1.1	—	-7
2,000 acres or more -----	acres--	.5	—	.5
Total cropland -----	farms--	-3.0	1.2	1.7
	acres--	-3.8	.5	-3.4
Harvested cropland -----	farms--	-4.5	1.1	.1
	acres--	-.3	.4	1.2
Irrigated land -----	farms--	4.1	1.3	4.8
	acres--	-1.6	.6	-.9
Market value of agricultural products sold -----	\$1,000 --	24.2	.4	25.1
Average per farm -----	dollars--	24.7	1.7	21.0
Crops, including nursery and greenhouse crops -----	\$1,000 --	38.5	.4	39.1
Livestock, poultry, and their products -----	\$1,000 --	5.4	.3	6.0
Farms by value of sales:				
Less than \$2,500 -----		-2.2	1.4	(X)
\$2,500 to \$4,999 -----		-4.5	1.7	(X)
\$5,000 to \$9,999 -----		-1.0	1.7	(X)
\$10,000 to \$24,999 -----		2.8	1.7	2.8
\$25,000 to \$49,999 -----		-.5	1.8	-5
\$50,000 to \$99,999 -----		-1.6	1.6	-1.6
\$100,000 to \$249,999 -----		-1.4	.7	-1.4
\$250,000 to \$499,999 -----		7.7	.1	7.7
\$500,000 or more -----		45.2	.1	45.2
Total farm production expenses <sup>1</sup> -----	\$1,000--	22.6	1.4	23.9
Average per farm -----	dollars--	23.1	1.6	19.8
Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup> -----	farms--	-.4	1.2	3.5
	\$1,000--	32.7	2.6	29.7
Average per farm -----	dollars--	33.3	3.1	25.4
Operators by principal occupation:				
Farming -----		-.3	1.1	.3
Other -----		-.4	1.6	13.8
Operators by days worked off farm:				
Any -----		-2.5	5.0	4.4
200 days or more -----		-4.4	4.9	6.8
Livestock and poultry:				
Cattle and calves inventory -----	farms--	-2.4	1.3	.7
	number--	-2.5	.5	-2.3
Beef cows -----	farms--	-2.0	1.3	5.9
	number--	1.7	.6	.2
Milk cows -----	farms--	-20.4	1.0	-16.9
	number--	3.9	.4	.9
Cattle and calves sold -----	farms--	-7.2	1.2	-.2
	number--	-5.9	.4	.4
Hogs and pigs inventory -----	farms--	12.6	2.1	-20.5
	number--	-32.5	1.3	-37.0
Hogs and pigs sold -----	farms--	4.5	2.0	-21.0
	number--	-32.2	1.2	-35.2
Sheep and lambs inventory -----	farms--	-12.1	1.3	-19.2
	number--	-16.4	.9	-16.6
Chickens 3 months old or older inventory -----	farms--	-22.0	1.4	-31.1
	number--	-3.1	.1	-3.1
Broilers and other meat-type chickens sold -----	farms--	-7.6	2.6	9.9
	number--	32.8	.3	32.9
Selected crops harvested:				
Wheat for grain -----	farms--	-22.2	.8	-18.5
	acres--	10.3	.3	11.0
Barley for grain -----	bushels--	-10.3	.3	-9.9
	farms--	-39.3	.7	-38.5
Oats for grain -----	acres--	-31.8	.4	-31.8
	bushels--	-36.5	.4	-36.4
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) -----	farms--	-13.3	1.1	-10.5
	acres--	-7.6	.7	-5.6
	tons, dry--	-2.8	.7	-.3
Vegetables harvested for sale (see text) -----	farms--	-1.3	1.1	-5.8
	acres--	3.8	.3	3.8
Land in orchards -----	farms--	-4.8	1.3	.4
	acres--	5.6	1.0	11.3

<sup>1</sup>Data are based on a sample of farms.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-13

**Table F. Reliability Estimates for the State and County Totals: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms		Land in farms		Average size of farm		Average market value of land and buildings per farm <sup>1</sup>		Estimated market value of all machinery and equipment <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Oregon -----	31 892	1.0	17 609 497	.2	552	1.0	370 938	1.5	1 532 094	1.0
Baker -----	593	1.7	818 736	.3	1 381	1.7	509 924	3.9	33 703	6.5
Benton -----	658	.9	118 818	.9	181	1.3	343 901	4.2	33 741	3.0
Clackamas -----	3 155	.9	148 848	.9	47	1.3	233 136	2.9	102 486	2.6
Clatsop -----	233	1.1	24 740	2.3	106	2.5	180 844	11.3	4 706	12.5
Columbia -----	661	.9	71 839	1.0	109	1.4	236 364	11.2	15 126	7.4
Coos -----	722	1.3	174 872	.9	242	1.6	301 592	8.6	20 838	5.5
Crook -----	503	1.1	894 853	.1	1 779	1.1	456 612	5.7	25 242	5.7
Curry -----	177	1.3	74 375	.9	420	1.6	531 029	6.8	6 302	3.9
Deschutes -----	1 036	1.4	139 483	.9	135	1.6	234 107	4.8	24 931	5.7
Douglas -----	1 823	1.0	402 023	.7	221	1.3	268 486	5.6	44 998	7.8
Gilliam -----	143	.3	766 373	.1	5 359	.3	981 494	3.3	16 993	3.2
Grant -----	394	.8	1 154 399	.1	2 930	.8	642 630	6.0	15 558	8.0
Harney -----	442	1.2	1 457 339	.1	3 297	1.2	856 347	5.9	26 090	6.4
Hood River -----	563	1.1	27 201	1.4	48	1.8	281 531	4.2	29 143	4.9
Jackson -----	1 573	1.1	262 251	.7	167	1.2	281 734	4.6	51 629	4.1
Jefferson -----	345	1.0	530 960	.2	1 539	1.0	496 783	4.2	28 794	7.2
Josephine -----	607	.9	31 249	1.5	51	1.8	181 973	7.7	14 861	9.8
Klamath -----	954	2.0	720 153	.7	755	2.1	480 199	5.5	69 917	7.0
Lake -----	366	1.0	833 025	.2	2 276	1.0	730 199	8.9	23 178	8.5
Lane -----	1 969	.9	242 121	.7	123	1.2	258 863	4.9	70 371	4.9
Lincoln -----	283	1.2	34 292	2.1	121	2.4	202 434	6.9	5 834	15.6
Linn -----	1 948	1.0	380 464	.6	195	1.1	322 921	2.5	101 295	3.4
Malheur -----	1 186	1.1	1 318 447	.2	1 112	1.1	525 126	5.8	97 761	3.2
Marion -----	2 494	1.0	302 462	.6	121	1.1	360 561	3.2	165 231	2.4
Morrow -----	348	.7	1 119 004	.1	3 216	.7	1 109 442	4.6	57 859	3.6
Multnomah -----	602	1.1	31 294	1.0	52	1.5	252 843	5.8	22 224	4.7
Polk -----	1 027	.9	167 880	.7	163	1.2	304 668	2.9	44 031	3.8
Sherman -----	179	.5	487 534	.1	2 724	.5	779 164	4.7	20 652	4.1
Tillamook -----	338	.7	39 559	.7	117	1.0	354 124	2.6	20 358	2.3
Umatilla -----	1 441	.9	1 466 580	.2	1 018	.9	490 907	2.4	110 055	2.6
Union -----	751	1.0	473 316	.5	630	1.1	317 302	5.8	37 072	5.4
Wallowa -----	459	1.0	694 304	.2	1 513	1.0	478 391	5.2	20 881	9.7
Wasco -----	456	.9	1 152 965	.1	2 528	.9	971 253	3.7	30 940	4.5
Washington -----	1 627	.8	139 820	.7	86	1.1	388 474	4.3	66 307	3.6
Wheeler -----	145	.5	728 131	.1	5 022	.5	1 006 613	3.9	8 160	13.5
Yamhill -----	1 691	.9	179 787	.8	106	1.2	294 376	3.2	64 828	3.2
Geographic area	Average market value of all machinery and equipment per farm <sup>1</sup>		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses <sup>1</sup>			
	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Oregon -----	48 223	1.5	2 292 973	.3	71 898	1.0	31 875	1.1	1 881 731	.4
Baker -----	57 124	6.7	39 033	.9	65 823	1.9	593	1.7	33 083	2.4
Benton -----	51 357	3.2	37 272	.4	56 644	1.0	657	1.2	37 030	2.2
Clackamas -----	32 743	2.8	151 211	.3	47 927	1.0	3 152	1.0	133 296	1.1
Clatsop -----	20 197	12.5	6 557	1.1	28 141	1.6	233	1.3	5 083	3.1
Columbia -----	23 094	7.5	12 263	.8	18 552	1.2	661	1.2	12 820	7.2
Coos -----	29 103	5.7	27 527	1.3	38 126	1.8	722	1.3	20 461	4.3
Crook -----	50 284	5.9	28 073	.6	55 811	1.2	502	1.5	23 368	3.0
Curry -----	35 809	4.5	10 457	.7	59 080	1.4	176	2.3	7 377	3.8
Deschutes -----	24 229	6.0	16 360	1.4	15 792	1.9	1 036	1.6	16 568	4.7
Douglas -----	24 697	7.8	31 232	.7	17 132	1.3	1 822	1.2	29 625	3.6
Gilliam -----	118 834	3.4	17 306	.1	121 023	.3	143	1.2	14 708	1.3
Grant -----	39 587	8.0	18 150	.4	46 066	.9	393	1.0	16 321	3.1
Harney -----	59 028	6.6	35 402	.4	80 095	1.3	442	1.4	30 894	6.2
Hood River -----	51 856	5.1	54 921	.7	97 551	1.3	562	1.5	41 338	2.1
Jackson -----	33 159	4.4	51 633	.5	32 825	1.2	1 572	1.3	47 628	1.7
Jefferson -----	83 460	7.3	42 456	.5	123 061	1.1	345	1.3	33 580	3.3
Josephine -----	24 483	9.9	12 300	.7	20 264	1.2	607	1.0	12 134	2.8
Klamath -----	73 288	7.4	85 035	.8	89 135	2.2	954	2.2	71 967	2.2
Lake -----	63 327	8.6	36 574	.5	99 930	1.1	366	.9	28 475	4.3
Lane -----	35 757	5.0	70 225	.4	35 665	1.0	1 968	1.1	64 264	1.4
Lincoln -----	20 689	15.7	5 779	2.2	20 421	2.5	282	1.6	5 612	15.1
Linn -----	52 026	3.6	139 526	.3	71 626	1.0	1 947	1.1	110 082	1.4
Malheur -----	82 359	3.5	199 678	.3	168 363	1.1	1 187	1.4	144 771	.9
Marion -----	66 331	2.7	313 155	.2	125 563	1.0	2 491	1.3	244 747	.6
Morrow -----	166 261	3.8	94 132	.2	270 495	.7	348	1.0	82 904	1.2
Multnomah -----	37 288	5.0	38 667	.5	64 231	1.2	603	1.6	28 502	2.7
Polk -----	42 915	4.0	65 608	.4	63 883	1.0	1 026	1.1	55 736	1.9
Sherman -----	115 372	4.6	20 585	.1	115 000	.5	179	2.0	15 321	2.4
Tillamook -----	60 231	2.5	63 663	.4	188 352	.8	338	1.0	52 244	1.6

See footnotes at end of table.

## C-14 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Average market value of all machinery and equipment per farm <sup>1</sup>		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses <sup>1</sup>					
	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total farm production expenses					
							Farms		Value			
							Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)		
Umatilla -----	76 374	2.8	186 690	.2	129 556	.9	1 441	1.1	158 390	1.0		
Union -----	49 895	5.6	46 422	.4	61 814	1.1	751	1.1	38 501	1.6		
Wallowa -----	46 401	9.9	28 679	.7	62 481	1.2	459	1.3	22 870	5.0		
Wasco -----	67 850	4.7	48 743	.3	106 891	1.0	456	1.1	35 721	1.5		
Washington -----	41 159	3.7	127 539	.3	78 389	.9	1 625	1.0	103 643	1.5		
Wheeler -----	56 275	13.7	6 485	.4	44 726	.6	145	1.8	5 944	4.4		
Yamhill -----	38 496	3.4	123 633	.3	73 112	.9	1 691	1.2	96 725	1.0		
Farm production expenses <sup>1</sup> —Con.												
Geographic area	Livestock and poultry purchased				Feed for livestock and poultry				Seeds, bulbs, plants, and trees			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
	Oregon -----	10 937	1.9	160 847	1.3	18 983	1.4	230 557	.9	8 422	1.9	51 855
Baker -----	293	7.3	6 649	4.3	451	4.5	4 784	4.9	173	12.3	330	11.7
Benton -----	216	12.6	536	19.8	355	7.4	3 549	2.8	273	10.7	1 091	12.0
Clackamas -----	947	5.2	4 473	8.5	1 767	2.8	18 203	5.2	780	5.3	5 306	2.0
Clatsop -----	81	19.1	558	7.0	193	7.4	1 958	2.7	40	34.9	22	49.0
Columbia -----	228	12.5	2 022	34.1	518	4.7	1 565	4.0	74	21.5	(D)	(D)
Coos -----	295	9.9	2 606	11.6	483	5.8	3 920	9.9	140	17.2	78	16.8
Crook -----	182	14.0	4 343	2.0	329	7.4	2 713	5.3	47	14.7	240	26.2
Curry -----	50	9.8	412	8.6	120	5.0	480	12.2	24	16.2	123	26.6
Deschutes -----	473	7.1	2 257	16.2	722	4.4	1 843	6.4	118	19.7	482	3.6
Douglas -----	678	6.5	7 013	7.7	1 287	3.3	3 346	5.0	264	11.6	230	14.7
Gilliam -----	53	9.9	1 016	4.4	83	5.9	1 314	4.2	84	5.7	556	4.0
Grant -----	205	10.3	3 201	10.6	273	8.1	3 482	6.0	61	21.9	77	18.0
Harney -----	215	11.2	5 076	11.9	361	6.2	5 564	10.8	109	22.7	244	17.1
Hood River -----	98	24.1	852	57.0	155	15.5	589	12.8	121	14.7	393	10.2
Jackson -----	656	6.9	4 248	7.8	1 024	4.0	4 270	6.2	304	9.9	407	10.9
Jefferson -----	134	14.9	6 458	3.0	188	8.6	1 867	9.7	133	12.4	531	4.3
Josephine -----	241	11.7	785	7.2	355	7.6	3 279	2.7	111	18.0	179	8.1
Klamath -----	395	8.4	12 138	7.2	640	5.4	10 333	4.2	237	11.3	1 725	5.7
Lake -----	162	12.4	3 842	10.7	289	6.2	3 354	5.4	90	19.0	237	10.2
Lane -----	688	6.3	7 948	3.4	1 249	3.5	9 787	1.2	405	8.2	1 479	4.9
Lincoln -----	104	12.7	256	29.5	207	5.9	622	40.2	41	28.0	(D)	(D)
Linn -----	696	6.6	5 561	5.6	1 260	3.6	11 140	3.2	446	7.6	1 769	3.3
Malheur -----	446	8.2	18 182	2.2	673	4.9	20 310	3.0	646	5.1	4 033	2.1
Marion -----	566	8.3	5 956	4.9	1 154	4.3	22 824	2.9	763	6.4	7 431	1.3
Morrow -----	145	12.3	3 002	6.2	201	8.4	2 065	5.1	164	8.3	3 950	2.0
Multnomah -----	141	14.6	183	16.8	218	10.1	312	18.5	170	11.1	1 664	5.4
Polk -----	328	9.2	3 030	8.6	573	5.6	10 923	1.6	254	9.7	688	6.0
Sherman -----	29	11.6	490	1.9	87	7.4	1 989	1.4	113	5.0	799	4.8
Tillamook -----	124	12.3	2 104	4.0	300	3.4	26 913	2.2	37	21.7	29	12.0
Umatilla -----	412	9.6	22 898	1.5	778	4.7	18 486	1.8	641	5.2	6 237	1.9
Union -----	294	10.4	11 844	2.7	495	5.7	2 511	9.0	277	9.5	863	6.2
Wallowa -----	234	10.9	2 995	10.4	352	6.3	3 943	7.8	94	21.8	247	11.1
Wasco -----	122	13.5	1 872	9.1	220	6.7	1 490	7.2	180	7.8	560	6.6
Washington -----	385	9.3	1 548	16.0	647	5.8	5 677	2.8	538	6.0	4 692	2.7
Wheeler -----	60	12.0	809	7.7	96	6.8	1 081	11.1	30	12.2	53	13.5
Yamhill -----	561	6.5	3 683	3.0	880	4.4	14 070	1.4	440	7.3	4 249	3.1
Farm production expenses <sup>1</sup> —Con.												
Geographic area	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
	Oregon -----	16 616	1.4	119 158	.9	23 952	1.2	104 042	1.0	28 479	1.1	80 192
Baker -----	244	8.4	1 128	8.4	361	6.1	428	5.3	583	2.0	1 851	4.7
Benton -----	356	7.2	4 146	3.4	600	3.2	3 645	4.0	609	2.5	1 567	2.9
Clackamas -----	1 721	3.0	3 753	3.4	2 754	1.7	3 652	3.2	2 835	1.6	4 115	2.1
Clatsop -----	58	26.4	29	24.4	72	20.7	25	28.2	209	5.3	226	15.3
Columbia -----	185	14.4	416	18.8	339	9.2	269	33.8	573	3.4	470	7.9
Coos -----	317	8.6	706	8.5	462	5.5	307	14.5	629	3.2	937	6.8
Crook -----	246	9.9	1 443	7.2	167	13.8	780	9.2	440	4.5	1 387	5.7
Curry -----	83	7.3	416	8.8	125	5.0	261	2.8	149	3.3	299	7.1
Deschutes -----	639	5.5	742	10.8	502	7.6	230	18.8	837	3.4	757	8.0

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-15

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Douglas-----	776	5.9	1 288	8.9	1 464	2.5	618	8.0	1 600	2.2	1 475	7.3
Gilliam-----	91	4.2	1 197	4.1	128	2.8	1 488	5.6	136	2.2	1 140	2.1
Grant-----	100	16.1	485	9.1	154	11.4	138	8.5	361	3.6	1 025	6.8
Harney-----	113	24.4	731	27.3	146	14.8	412	10.5	409	4.0	1 852	6.6
Hood River-----	448	5.8	1 078	4.9	447	5.5	5 016	4.1	518	3.3	1 477	4.5
Jackson-----	677	6.7	1 060	8.2	1 205	3.4	4 176	2.2	1 365	2.5	1 742	4.7
Jefferson-----	240	6.9	3 021	5.6	232	8.0	2 634	9.3	279	3.2	1 343	8.1
Josephine-----	329	8.4	325	10.8	442	5.3	190	14.3	501	4.6	505	12.4
Klamath-----	263	9.8	3 958	6.6	666	5.0	2 503	5.9	900	2.8	3 841	4.0
Lake-----	102	16.7	1 080	6.5	162	11.6	600	15.5	339	3.3	1 940	5.2
Lane-----	938	4.5	3 860	3.2	1 625	2.4	4 131	7.1	1 738	1.9	2 857	2.7
Lincoln-----	91	18.3	176	56.7	246	4.3	83	9.8	251	3.8	383	16.8
Linn-----	1 082	4.0	13 952	2.6	1 703	2.2	9 109	2.2	1 737	2.0	4 752	1.6
Malheur-----	593	5.1	11 618	2.3	872	3.9	7 861	2.0	1 111	2.0	7 149	2.6
Marion-----	1 685	3.0	17 034	2.2	2 318	1.7	13 263	2.2	2 252	1.9	8 736	1.8
Morrow-----	240	6.5	8 775	1.6	252	6.4	8 635	1.6	318	2.7	3 472	3.1
Multnomah-----	352	6.3	1 138	6.0	405	5.8	992	8.4	536	2.8	974	6.1
Polk-----	601	5.4	5 380	4.5	749	3.9	4 487	4.4	907	2.5	2 407	2.2
Sherman-----	128	4.2	1 728	5.2	159	3.2	1 476	4.8	163	2.9	1 335	3.2
Tillamook-----	108	11.2	229	9.4	161	8.1	121	6.2	321	2.4	933	1.6
Umatilla-----	808	4.1	12 428	1.9	1 094	3.2	13 169	3.3	1 282	2.2	6 544	3.2
Union-----	402	7.0	2 884	5.2	526	5.3	1 334	3.9	683	2.6	1 596	3.8
Wallowa-----	233	11.6	1 031	12.0	271	9.3	417	15.8	419	3.7	1 261	5.3
Wasco-----	289	5.6	2 037	4.4	279	6.6	2 611	2.9	402	2.9	1 570	3.3
Washington-----	1 089	3.7	4 673	4.6	1 441	2.2	4 320	3.6	1 429	2.2	3 952	2.4
Wheeler-----	34	17.0	84	17.5	76	7.4	103	11.7	132	3.2	445	5.2
Yamhill-----	955	4.2	5 128	4.8	1 347	2.6	4 559	9.4	1 526	2.0	3 878	2.3
Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Electricity				Hired farm labor				Contract labor			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Oregon-----	22 431	1.3	45 048	1.0	11 480	1.7	367 047	.5	4 850	2.8	31 329	3.2
Baker-----	433	5.0	619	9.8	207	9.8	2 263	7.2	71	16.4	276	12.0
Benton-----	481	5.2	850	2.5	282	8.2	6 584	4.8	146	15.4	565	8.0
Clackamas-----	2 206	2.5	2 190	1.8	1 145	4.2	43 201	.7	490	8.0	2 301	3.7
Clatsop-----	140	11.0	125	10.5	68	22.0	443	.9	18	49.0	31	41.8
Columbia-----	368	8.5	190	4.5	186	14.8	1 559	1.1	73	23.2	(D)	(D)
Coos-----	550	4.1	634	5.1	274	8.4	1 894	4.1	132	17.2	792	27.3
Crook-----	376	5.1	881	4.4	132	14.6	1 675	2.3	94	20.9	578	20.1
Curry-----	143	3.9	196	7.4	87	5.3	1 803	5.1	32	12.8	224	6.4
Deschutes-----	822	3.6	704	10.6	261	12.0	1 849	5.2	135	17.5	224	13.5
Douglas-----	1 286	3.5	626	6.0	520	8.0	1 977	9.0	242	13.2	369	19.2
Gilliam-----	119	3.6	354	3.5	85	2.8	1 549	4.0	28	14.5	76	6.4
Grant-----	270	8.0	246	8.7	119	14.2	1 439	5.9	56	20.3	139	22.4
Harney-----	363	7.4	1 339	7.6	169	16.4	2 108	4.5	66	30.9	345	5.7
Hood River-----	401	5.2	689	4.0	365	5.8	15 866	2.0	97	21.8	423	3.7
Jackson-----	1 066	4.2	972	3.7	480	8.6	13 652	.7	201	15.9	926	20.0
Jefferson-----	248	7.9	824	9.1	125	15.0	4 270	2.9	69	19.8	267	38.1
Josephine-----	449	5.4	396	6.0	192	13.2	1 952	6.5	62	24.0	96	9.8
Klamath-----	750	4.5	1 377	4.9	285	8.9	7 792	3.9	139	17.7	932	7.9
Lake-----	258	7.2	1 810	12.9	138	14.8	2 810	5.5	60	21.5	538	8.1
Lane-----	1 212	3.8	1 206	3.0	634	6.6	9 515	4.5	284	11.4	750	11.1
Lincoln-----	149	9.0	100	35.7	90	17.3	1 387	12.3	31	32.8	(D)	(D)
Linn-----	1 300	3.6	2 014	4.4	686	5.6	17 953	4.0	224	12.0	1 313	13.2
Malheur-----	925	3.5	2 303	1.7	460	6.0	17 206	2.0	334	8.5	5 981	3.4
Marion-----	1 711	3.3	4 598	2.2	1 173	4.5	66 056	1.4	392	10.5	3 612	20.2
Morrow-----	286	5.3	7 221	.7	170	9.5	12 198	1.4	59	18.5	906	2.8
Multnomah-----	342	6.1	306	7.7	240	9.5	12 541	2.8	84	17.0	521	32.2
Polk-----	787	3.8	852	3.6	326	8.6	7 050	3.1	161	13.8	508	11.8
Sherman-----	148	4.2	290	4.0	72	6.7	1 193	5.7	17	18.9	80	5.3
Tillamook-----	275	5.4	962	1.7	164	6.5	5 194	1.6	36	18.7	136	7.4
Umatilla-----	1 166	3.1	5 158	3.4	554	6.4	21 810	2.3	223	12.9	1 389	14.2
Union-----	464	6.1	622	5.3	273	10.2	2 723	8.3	84	20.5	478	5.0
Wallowa-----	343	7.2	553	15.9	147	16.5	2 467	7.4	38	33.7	401	57.3
Wasco-----	351	4.7	711	5.4	211	7.3	11 112	2.1	65	22.2	219	16.4
Washington-----	1 084	3.4	1 489	2.1	552	6.6	35 979	1.4	284	9.8	3 781	6.2
Wheeler-----	100	6.1	188	8.4	49	12.6	737	8.3	20	14.0	89	21.0
Yamhill-----	1 059	4.1	1 453	3.3	559	6.4	27 240	1.3	303	10.4	1 968	6.3

See footnotes at end of table.

## C-16 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Repair and maintenance				Customwork, machine hire, and rental of machinery and equipment				Interest expense			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Oregon -----	<b>25 574</b>	<b>1.2</b>	<b>121 370</b>	.8	<b>9 015</b>	<b>2.0</b>	<b>38 704</b>	<b>2.0</b>	<b>12 384</b>	<b>1.7</b>	<b>133 197</b>	<b>1.2</b>
Baker -----	521	3.8	2 032	6.0	231	10.7	601	20.6	334	6.9	3 711	9.8
Benton -----	540	4.7	2 505	3.1	240	10.1	1 544	11.3	233	9.9	2 417	7.7
Clackamas -----	2 449	2.2	6 951	2.1	786	6.0	1 704	12.3	1 134	4.6	7 573	4.1
Clatsop -----	188	6.8	257	8.7	59	26.2	58	26.2	45	26.7	307	10.9
Columbia -----	430	6.3	963	8.6	157	15.4	279	22.2	197	13.2	1 209	11.1
Coos -----	615	3.4	1 429	6.3	137	15.1	396	32.8	245	10.1	2 003	9.5
Crook -----	376	5.7	1 795	6.4	115	16.7	469	13.1	188	11.7	1 987	7.7
Curry -----	143	3.4	678	5.9	28	14.5	110	27.2	64	7.4	495	5.6
Deschutes -----	767	3.9	1 278	8.2	193	13.2	243	12.1	330	10.2	2 117	12.9
Douglas -----	1 448	2.7	2 533	11.7	473	8.7	395	13.1	599	7.0	2 953	7.8
Gilliam -----	128	3.1	1 363	2.4	51	9.1	368	6.4	104	5.0	1 216	4.8
Grant -----	367	3.4	1 137	5.1	51	24.3	139	7.7	185	11.9	1 335	8.4
Harney -----	374	7.0	2 060	6.2	119	16.5	477	20.8	300	9.9	3 293	9.6
Hood River -----	486	4.7	2 747	4.3	155	13.8	393	13.9	267	7.3	3 456	6.7
Jackson -----	1 245	3.4	3 130	3.9	451	9.4	435	12.7	465	9.0	3 602	10.5
Jefferson -----	296	5.1	2 060	5.8	133	14.5	1 198	14.0	174	12.8	1 759	12.4
Josephine -----	517	3.7	967	6.6	153	15.2	308	30.5	163	15.3	664	10.0
Klamath -----	809	3.8	5 357	5.8	268	11.5	1 364	15.6	447	7.3	5 203	6.6
Lake -----	339	3.9	2 347	6.1	103	17.9	909	12.5	243	8.9	2 380	9.8
Lane -----	1 406	3.2	3 908	4.4	459	8.1	1 267	5.0	508	7.7	3 636	6.2
Lincoln -----	220	6.1	338	12.8	50	25.7	46	46.8	66	17.1	326	12.8
Linn -----	1 513	2.9	7 211	3.3	537	7.1	2 180	10.2	694	6.1	7 119	3.9
Malheur -----	1 061	2.5	8 305	1.9	614	6.2	2 981	3.5	729	4.9	10 395	4.9
Marion -----	2 048	2.3	15 502	1.8	929	5.3	5 722	3.9	940	5.0	15 739	1.9
Morrow -----	293	3.7	6 795	2.9	113	13.9	4 028	1.7	201	9.0	6 897	3.6
Multnomah -----	493	3.7	1 744	6.8	136	14.9	396	35.2	158	11.6	1 129	7.0
Polk -----	858	3.1	3 006	2.5	326	9.3	914	9.8	435	6.7	5 094	5.8
Sherman -----	158	3.4	1 425	4.0	69	8.1	450	13.2	109	4.5	1 093	6.7
Tillamook -----	286	4.4	2 627	2.1	66	12.9	411	3.4	192	6.4	3 671	6.4
Umatilla -----	1 158	2.9	10 817	2.4	445	7.6	4 297	6.1	650	6.3	10 236	3.4
Union -----	596	4.2	2 149	4.4	203	12.5	1 062	9.2	311	9.2	3 172	8.1
Wallowa -----	365	5.6	1 425	7.6	85	25.1	188	35.6	227	12.2	2 251	15.1
Wasco -----	335	4.9	2 380	3.3	124	9.9	547	5.3	248	8.3	2 940	5.9
Washington -----	1 210	3.0	5 721	3.6	475	7.4	1 407	4.7	571	6.4	5 404	5.8
Wheeler -----	130	4.0	570	12.0	13	36.7	10	30.5	60	11.7	463	8.9
Yamhill -----	1 406	2.6	5 858	3.0	468	8.0	1 410	22.2	568	7.1	5 948	3.4
Farm production expenses <sup>1</sup> —Con.												
Geographic area	Cash rent				Property taxes paid				All other farm production expenses			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Oregon -----	<b>6 069</b>	<b>2.3</b>	<b>85 134</b>	<b>1.3</b>	<b>29 510</b>	<b>1.1</b>	<b>68 203</b>	<b>1.1</b>	<b>28 623</b>	<b>1.1</b>	<b>245 048</b>	<b>.8</b>
Baker -----	200	11.8	2 144	12.0	537	3.3	1 316	3.9	541	3.1	4 950	4.5
Benton -----	163	12.3	2 832	4.6	594	3.1	1 485	5.4	597	3.3	3 712	2.9
Clackamas -----	438	7.6	3 723	2.4	2 979	1.3	5 802	2.5	2 765	1.7	20 347	2.4
Clatsop -----	42	27.2	89	38.9	225	3.4	381	12.7	168	8.0	574	5.5
Columbia -----	70	23.6	325	41.2	656	1.3	935	6.5	551	4.0	2 015	5.9
Coos -----	102	17.2	593	21.7	693	1.9	1 520	5.7	669	2.5	2 647	5.7
Crook -----	86	17.5	1 264	3.6	485	2.1	1 116	6.4	449	3.3	2 696	6.6
Curry -----	35	12.8	352	4.7	153	3.4	348	5.9	167	2.5	1 179	6.1
Deschutes -----	137	16.4	191	13.4	991	2.1	1 583	5.6	987	2.2	2 069	7.6
Douglas -----	178	13.0	916	14.0	1 714	1.8	2 774	5.2	1 633	2.0	3 113	5.3
Gilliam -----	34	10.9	530	5.2	118	3.2	674	4.2	140	1.9	1 866	3.8
Grant -----	61	20.8	323	11.8	384	2.0	971	5.8	364	3.6	2 184	4.7
Harney -----	127	22.9	817	30.7	406	5.0	1 038	6.7	420	3.7	5 539	8.5
Hood River -----	79	17.1	895	6.3	542	2.3	1 605	3.7	473	4.1	5 858	7.1
Jackson -----	184	15.1	903	9.3	1 460	2.1	2 702	5.0	1 310	2.8	5 402	3.2
Jefferson -----	135	16.5	1 680	8.5	295	5.9	736	8.4	336	2.7	4 934	4.4
Josephine -----	41	23.3	109	8.3	592	1.4	680	7.2	570	2.4	1 698	2.4
Klamath -----	277	10.6	3 851	7.3	888	3.0	2 760	7.6	910	2.8	8 832	4.0
Lake -----	87	17.8	1 324	25.4	348	2.9	1 170	5.1	330	4.3	4 132	4.8
Lane -----	265	10.6	2 921	3.1	1 858	1.6	3 604	5.0	1 698	2.1	7 397	3.7
Lincoln -----	40	33.6	94	21.8	257	5.0	406	9.7	224	5.2	1 045	16.3
Linn -----	439	7.2	9 638	3.1	1 759	1.9	3 453	2.6	1 796	1.8	12 919	2.5
Malheur -----	416	7.5	6 848	2.5	1 047	2.7	3 139	3.0	1 137	1.9	18 459	2.1
Marion -----	725	6.7	14 155	2.9	2 195	2.3	6 194	3.7	2 239	2.0	37 923	1.0
Morrow -----	73	12.5	4 895	3.9	299	3.7	1 826	4.0	327	2.8	8 238	2.3
Multnomah -----	106	13.9	923	5.7	568	2.2	1 393	6.9	530	3.3	4 286	1.3
Polk -----	182	10.7	3 097	5.3	967	1.9	1 978	3.8	893	2.6	6 322	6.4
Sherman -----	16	20.2	313	4.7	137	3.9	666	6.1	174	2.4	1 993	4.2
Tillamook -----	86	8.2	707	8.2	304	3.7	909	3.1	298	3.8	7 300	1.7

See footnotes at end of table.

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Cash rent				Property taxes paid				All other farm production expenses			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Umatilla -----	296	10.7	6 726	3.7	1 317	2.0	3 719	2.6	1 341	1.8	14 475	4.4
Union -----	145	14.5	1 499	11.7	701	2.3	1 277	4.2	667	2.8	4 486	3.1
Wallowa -----	105	20.9	1 592	13.6	406	5.1	856	8.6	451	1.6	3 242	6.7
Wasco -----	85	14.3	1 611	6.6	411	3.2	1 790	5.2	428	2.3	4 271	2.4
Washington -----	313	9.8	4 206	8.2	1 522	1.7	3 427	4.0	1 421	2.1	17 367	3.9
Wheeler -----	41	14.4	184	14.5	122	4.6	454	9.4	139	1.9	673	8.3
Yamhill -----	260	9.8	2 862	4.6	1 580	1.7	3 515	3.4	1 480	2.2	10 904	1.4
Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup>												
Geographic area	Total cropland				Harvested cropland							
	Farms		Value		Farms		Acres		Farms		Acres	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
	<b>Oregon -----</b>	<b>31 875</b>	<b>1.1</b>	<b>398 979</b>	<b>1.2</b>	<b>26 508</b>	<b>.9</b>	<b>5 037 764</b>	<b>.4</b>	<b>20 743</b>	<b>.9</b>	<b>2 823 972</b>
Baker -----	593	1.7	4 899	17.7	490	1.8	143 418	1.3	382	1.9	67 541	1.0
Benton -----	657	1.2	(D)	(D)	555	1.0	86 437	.7	452	1.1	68 494	.6
Clackamas -----	3 152	1.0	18 868	6.2	2 610	.9	93 454	.9	2 075	.9	59 481	.9
Clatsop -----	233	1.3	294	48.0	175	1.5	13 113	3.4	129	1.9	4 772	2.8
Columbia -----	661	1.2	(D)	(D)	533	1.0	30 709	1.3	403	1.1	15 054	1.3
Coos -----	722	1.3	6 064	12.3	583	1.4	47 292	1.6	418	1.5	14 115	1.6
Crook -----	502	1.5	4 506	12.2	390	1.2	65 989	.9	279	1.5	33 874	.9
Curry -----	176	2.3	2 927	4.3	105	1.8	7 136	3.1	78	2.2	1 807	1.7
Deschutes -----	1 036	1.6	(D)	(D)	803	1.5	39 656	1.9	501	1.6	17 631	3.0
Douglas -----	1 822	1.2	(D)	(D)	1 432	1.1	104 834	1.3	1 018	1.1	36 889	1.1
Gilliam -----	143	1.2	2 692	7.2	127	.5	251 932	.1	102	.7	100 729	.2
Grant -----	393	1.0	1 438	36.9	300	1.0	80 405	.7	225	1.2	35 522	.4
Harney -----	442	1.4	6 130	14.1	362	1.3	165 752	.6	277	1.3	80 408	.5
Hood River -----	562	1.5	12 046	6.5	535	1.2	20 277	1.3	496	1.2	17 346	1.1
Jackson -----	1 572	1.3	(D)	(D)	1 299	1.1	68 216	1.4	917	1.2	32 868	1.7
Jefferson -----	345	1.3	9 919	7.7	312	1.1	97 725	.8	251	1.4	43 566	.8
Josephine -----	607	1.0	(D)	(D)	498	1.0	16 257	1.5	376	1.2	8 920	1.8
Klamath -----	954	2.2	13 559	8.4	762	2.3	223 457	1.5	548	2.3	133 136	1.3
Lake -----	366	.9	6 307	13.9	315	1.1	166 095	.7	210	1.4	95 493	.6
Lane -----	1 968	1.1	5 601	15.5	1 618	1.0	114 776	.9	1 262	1.0	73 344	.6
Lincoln -----	282	1.6	(D)	(D)	208	1.5	11 172	2.5	130	2.0	3 626	4.4
Linn -----	1 947	1.1	28 482	2.8	1 585	1.0	297 200	.5	1 195	1.0	247 419	.5
Malheur -----	1 187	1.4	54 378	2.3	1 080	1.1	252 381	.7	959	1.2	164 821	.6
Marion -----	2 491	1.3	66 224	1.9	2 109	1.0	242 561	.5	1 813	1.0	199 706	.5
Morrow -----	348	1.0	12 985	8.1	288	.9	458 086	.2	237	1.0	220 149	.2
Multnomah -----	603	1.6	10 575	4.3	522	1.1	19 684	1.1	451	1.2	14 642	1.0
Polk -----	1 026	1.1	9 331	7.1	877	1.0	118 207	.7	679	1.1	88 080	.8
Sherman -----	179	2.0	5 756	5.1	164	.6	314 217	.2	147	.7	127 018	.2
Tillamook -----	338	1.0	10 340	3.6	247	1.0	23 676	.7	113	1.6	6 348	.9
Umatilla -----	1 441	1.1	29 045	4.0	1 190	.9	708 209	.3	935	.9	381 564	.3
Union -----	751	1.1	7 596	6.2	640	1.1	144 018	1.0	547	1.1	89 011	.8
Wallowa -----	459	1.3	3 415	29.5	364	1.1	101 251	.9	267	1.3	53 711	.8
Wasco -----	456	1.1	12 305	5.6	409	1.0	236 435	.3	334	1.1	96 959	.2
Washington -----	1 625	1.0	24 633	3.6	1 448	.9	104 793	.8	1 268	.9	84 825	.8
Wheeler -----	145	1.8	741	27.0	120	.7	43 933	.5	76	1.4	10 743	.5
Yamhill -----	1 691	1.2	26 790	2.8	1 453	.9	125 011	.7	1 193	.9	94 360	.7
Irrigated land												
Geographic area	Livestock and poultry											
	Cattle and calves inventory				Beef cows inventory							
	Farms		Acres		Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>Oregon -----</b>	<b>15 002</b>	<b>1.0</b>	<b>1 622 235</b>	<b>.5</b>	<b>17 088</b>	<b>1.0</b>	<b>1 465 444</b>	<b>.4</b>	<b>13 105</b>	<b>1.0</b>	<b>629 625</b>	<b>.5</b>
Baker -----	462	1.8	107 978	1.1	463	1.7	93 418	.9	371	1.9	45 257	.9
Benton -----	258	1.4	19 467	.6	286	1.5	10 362	1.6	223	1.7	3 513	2.8
Clackamas -----	928	1.0	23 982	.8	1 413	1.1	29 635	1.3	1 057	1.2	10 046	1.8
Clatsop -----	20	5.5	441	14.2	186	1.4	9 013	2.4	154	1.7	3 500	4.5
Columbia -----	74	2.4	2 669	2.5	486	1.1	15 470	1.7	407	1.2	5 655	2.1
Coos -----	289	1.8	10 150	1.6	486	1.3	27 816	1.3	376	1.5	11 102	1.5
Crook -----	388	1.3	47 477	.8	354	1.3	54 799	.8	303	1.5	26 717	.9
Curry -----	73	2.4	2 711	1.6	103	2.0	7 310	1.4	89	2.2	3 840	1.9
Deschutes -----	886	1.4	37 163	1.5	627	1.5	20 660	1.8	465	1.7	9 065	2.3
Douglas -----	577	1.3	12 746	2.1	1 193	1.1	55 186	1.1	937	1.2	21 867	1.4
Gilliam -----	26	2.6	4 014	1.3	84	.8	17 804	.2	79	.9	(D)	(D)
Grant -----	252	1.2	38 538	.7	300	1.0	56 918	.3	262	1.1	31 292	.4
Harney -----	285	1.3	92 650	.5	351	1.2	99 310	.4	319	1.2	60 422	.4
Hood River -----	533	1.2	17 674	.9	112	2.8	2 411	3.6	81	3.3	(D)	(D)

See footnotes at end of table.

## C-18 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Irrigated land				Livestock and poultry							
	Farms		Acres		Cattle and calves inventory				Beef cows inventory			
					Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Jackson -----	1 148	1.1	50 530	1.1	955	1.2	40 053	1.1	742	1.3	18 675	1.3
Jefferson -----	277	1.2	42 120	.9	161	1.8	28 125	1.4	135	2.0	(D)	(D)
Josephine -----	423	1.1	10 767	1.4	299	1.4	10 274	1.1	209	1.7	2 051	2.7
Klamath -----	738	2.2	213 363	1.2	635	2.1	98 756	1.2	528	2.3	41 915	1.5
Lake -----	244	1.3	134 094	.6	264	1.2	87 219	.4	239	1.3	47 161	.5
Lane -----	654	1.1	24 728	.8	1 047	1.1	37 665	1.0	829	1.2	13 777	1.6
Lincoln -----	63	3.2	948	8.3	202	1.6	7 313	2.8	185	1.7	3 615	2.3
Linn -----	521	1.3	32 424	.9	1 155	1.2	34 070	1.1	875	1.3	11 025	1.9
Malheur -----	1 047	1.1	178 768	.6	660	1.2	181 478	.4	471	1.2	75 424	.5
Marion -----	1 171	1.0	96 883	.4	973	1.2	44 462	.7	619	1.4	7 074	2.1
Morrow -----	200	1.3	101 506	.4	214	1.2	35 228	.9	187	1.3	20 119	.8
Multnomah -----	244	1.5	6 373	1.1	189	2.1	4 182	3.3	145	2.4	(D)	(D)
Polk -----	232	1.5	15 089	.6	496	1.3	17 952	.9	354	1.5	3 696	2.0
Sherman -----	24	2.5	4 087	.5	83	1.0	9 105	.2	78	1.0	(D)	(D)
Tillamook -----	90	1.6	6 536	1.2	299	.8	44 265	.5	96	2.2	1 023	5.0
Umatilla -----	919	1.1	116 001	.6	675	1.2	76 730	.5	508	1.3	31 998	.7
Union -----	307	1.5	49 052	.9	426	1.3	51 380	.7	360	1.4	20 149	1.0
Wallowa -----	312	1.3	45 205	1.3	326	1.2	61 087	.7	290	1.3	30 892	.8
Wasco -----	277	1.2	24 311	.8	230	1.4	32 567	.5	202	1.4	16 979	.5
Washington -----	581	1.1	22 964	.8	540	1.2	17 060	1.3	353	1.5	3 303	2.3
Wheeler -----	82	1.2	7 385	.5	113	.9	21 274	.3	97	1.1	12 530	.4
Yamhill -----	397	1.3	21 441	.7	702	1.1	25 087	.7	480	1.3	4 820	1.7
Livestock and poultry —Con.												
Geographic area	Milk cows inventory				Hogs and pigs inventory				Sheep and lambs inventory			
	Farms		Total		Farms		Total		Farms		Total	
					Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Oregon -----	1 541	1.0	99 035	.3	1 669	1.3	58 276	1.6	3 639	1.1	392 957	.7
Baker -----	59	3.6	2 044	2.1	28	5.7	372	1.7	71	3.9	4 872	4.5
Benton -----	18	5.3	2 087	.1	46	4.0	524	6.5	102	2.7	6 216	4.3
Clackamas -----	96	2.7	3 614	2.1	183	2.2	4 752	3.1	314	1.7	10 575	3.6
Clatsop -----	19	4.4	1 411	.3	23	5.2	150	7.0	23	5.4	871	13.4
Columbia -----	19	5.5	1 181	.2	31	4.5	239	12.1	27	4.4	1 159	6.3
Coos -----	75	2.7	4 843	1.7	33	4.9	184	7.5	119	2.4	26 923	1.5
Crook -----	17	5.8	86	3.4	33	5.0	292	10.4	47	4.1	3 764	7.6
Curry -----	9	8.1	256	3.4	4	13.6	(D)	(D)	62	2.7	25 357	1.1
Deschutes -----	40	4.3	973	3.3	79	3.7	598	5.6	95	3.1	3 360	4.3
Douglas -----	79	3.2	263	8.8	90	3.1	506	4.3	474	1.4	71 220	1.2
Gilliam -----	4	—	(D)	(D)	3	—	(D)	(D)	7	—	120	—
Grant -----	29	4.0	51	4.0	23	6.1	308	9.2	50	3.3	1 288	5.4
Harney -----	32	4.4	80	9.8	16	8.9	145	5.4	37	4.5	6 829	1.4
Hood River -----	6	12.1	(D)	(D)	10	10.2	89	16.2	16	7.1	220	9.3
Jackson -----	53	3.6	935	5.3	126	2.7	1 176	5.3	189	2.2	5 270	4.6
Jefferson -----	3	18.1	(D)	(D)	18	6.7	238	6.8	37	4.2	10 578	1.2
Josephine -----	28	3.9	2 598	.3	64	3.3	1 239	11.3	49	3.6	837	7.1
Klamath -----	43	4.4	4 518	.8	54	4.7	1 143	11.1	96	3.7	13 033	2.9
Lake -----	16	6.2	75	1.3	10	10.0	(D)	(D)	30	5.2	2 433	17.6
Lane -----	59	2.9	2 977	.7	107	2.8	1 338	7.1	221	1.9	25 524	1.5
Lincoln -----	16	6.6	138	1.9	12	9.0	80	11.3	49	3.6	3 162	7.0
Linn -----	81	2.5	6 757	.5	102	2.9	2 741	3.4	352	1.6	68 286	1.2
Malheur -----	135	1.9	6 640	1.3	51	3.4	1 625	8.3	80	2.8	12 739	2.2
Marion -----	100	1.9	14 861	.3	107	2.8	10 625	2.8	267	1.9	12 412	3.3
Morrow -----	13	6.5	177	3.7	20	6.3	426	2.9	30	3.2	14 072	.9
Multnomah -----	9	8.2	(D)	(D)	22	6.2	212	8.3	42	4.5	836	5.4
Polk -----	41	3.7	4 489	.2	44	3.6	2 289	2.5	166	2.0	11 903	2.8
Sherman -----	2	—	(D)	(D)	7	6.6	378	2.1	6	8.8	70	3.2
Tillamook -----	188	1.0	25 580	.4	11	7.2	72	17.7	6	9.9	106	16.6
Umatilla -----	53	3.8	436	4.5	47	4.3	1 246	16.8	112	2.6	29 233	.8
Union -----	21	5.9	36	6.4	37	4.8	4 600	11.1	50	4.1	1 949	7.4
Wallowa -----	27	4.8	70	12.8	26	5.9	1 076	13.8	78	2.9	3 646	2.5
Wasco -----	13	7.8	25	16.6	26	5.4	1 601	1.8	23	5.8	611	8.9
Washington -----	56	2.9	4 615	1.1	66	3.2	6 594	2.5	104	2.6	1 829	3.4
Wheeler -----	17	3.2	81	2.4	9	5.7	175	10.6	16	4.1	625	5.7
Yamhill -----	65	2.6	6 719	.5	101	2.8	10 668	4.2	192	1.9	11 029	3.1

See footnotes at end of table.

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Livestock and poultry —Con.											
	Hens and pullets of laying age inventory				Broilers and other meat-type chickens sold							
	Farms		Total		Farms		Total		Relative standard error of estimate (percent)			
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)				
Oregon -----	2 451	1.3	2 699 459	.1	208	1.9	18 921 442	.2				
Baker -----	29	5.5	448	6.0	—	—	—	—				
Benton -----	61	3.7	40 097	3.6	4	15.2	(D)	(D)				
Clackamas -----	255	1.9	1 238 447	.2	48	3.7	4 428 187	(L)				
Clatsop -----	23	5.3	1 255	17.6	—	—	—	—				
Columbia -----	66	3.2	5 264	.9	2	20.0	(D)	(D)				
Coos -----	51	4.1	977	5.0	2	18.9	(D)	(D)				
Crook -----	28	5.3	555	9.8	1	21.5	(D)	(D)				
Curry -----	15	6.5	257	7.8	—	—	—	—				
Deschutes -----	91	3.4	1 089	4.0	2	18.1	(D)	(D)				
Douglas -----	185	2.3	2 760	2.7	6	8.2	882 086	(L)				
Gilliam -----	5	—	86	—	—	—	—	—				
Grant -----	39	3.5	1 186	12.8	3	16.6	(D)	(D)				
Harney -----	40	4.3	660	4.6	—	—	—	—				
Hood River -----	21	6.6	262	8.0	6	10.3	(D)	(D)				
Jackson -----	159	2.5	(D)	(D)	15	7.7	675	11.1				
Jefferson -----	13	9.1	263	11.3	—	—	—	—				
Josephine -----	80	3.0	1 424	3.8	2	20.1	(D)	(D)				
Klamath -----	48	4.7	900	5.5	4	15.7	140	19.3				
Lake -----	19	6.8	352	8.1	—	—	—	—				
Lane -----	198	2.0	(D)	(D)	22	3.3	4 212 147	.5				
Lincoln -----	26	5.7	444	10.1	1	39.3	(D)	(D)				
Linn -----	186	2.2	3 572	3.2	12	4.2	2 977 787	(L)				
Malheur -----	61	3.4	1 137	4.0	2	20.9	(D)	(D)				
Marion -----	152	2.4	(D)	(D)	10	7.8	(D)	(D)				
Morrow -----	16	7.9	372	10.9	2	20.6	(D)	(D)				
Multnomah -----	55	4.0	874	8.9	6	11.7	595	15.3				
Polk -----	95	2.9	1 602	4.7	21	5.7	3 153 859	.2				
Sherman -----	4	7.5	(D)	(D)	—	—	—	—				
Tillamook -----	10	7.5	121	11.2	2	15.7	(D)	(D)				
Umatilla -----	67	3.5	1 256	6.6	—	—	—	—				
Union -----	55	3.8	1 137	4.9	2	26.8	(D)	(D)				
Wallowa -----	19	7.0	338	7.5	1	28.0	(D)	(D)				
Wasco -----	32	4.8	710	6.0	4	14.8	78	17.4				
Washington -----	112	2.6	3 567	11.8	7	11.0	(D)	(D)				
Wheeler -----	19	3.5	278	4.7	—	—	—	—				
Yamhill -----	116	2.5	(D)	(D)	21	5.1	1 896 391	1.2				
Selected crops harvested												
Geographic area	Wheat for grain				Barley for grain							
	Farms		Acres		Quantity		Farms		Acres			
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels			
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Relative standard error of estimate (percent)			
Oregon -----	3 025	.8	924 855	.2	46 527 762	.3	1 096	.9	127 185	.5	7 787 057	.6
Baker -----	39	4.5	4 734	1.7	340 989	1.8	41	3.9	2 295	3.1	137 220	2.8
Benton -----	58	2.5	10 350	1.3	754 965	1.2	12	6.6	264	9.3	14 749	7.7
Clackamas -----	86	2.8	4 746	3.0	338 747	3.0	20	6.5	227	5.8	11 831	7.0
Clatsop -----	—	—	—	—	—	—	—	—	—	—	—	—
Columbia -----	5	2.9	1 174	1.0	72 522	1.2	3	4.8	(D)	(D)	(D)	(D)
Coos -----	1	29.9	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Crook -----	13	4.1	999	2.3	83 220	2.5	1	—	(D)	(D)	(D)	(D)
Curry -----	—	—	—	—	—	—	1	33.1	(D)	(D)	(D)	(D)
Deschutes -----	10	8.0	724	7.5	40 534	5.7	3	8.0	47	10.8	4 641	10.7
Douglas -----	7	5.2	1 168	.1	64 663	.1	4	10.7	58	5.2	3 729	3.2
Gilliam -----	81	.6	86 678	.3	2 603 615	.1	45	.6	10 893	.1	306 202	.1
Grant -----	4	—	1 249	—	35 101	—	5	—	193	—	7 379	—
Harney -----	3	12.4	290	7.7	8 450	9.3	33	2.5	343	1.0	19 027	.4
Hood River -----	3	18.3	333	21.2	(D)	(D)	1	—	(D)	—	(D)	—
Jackson -----	37	4.6	1 510	7.9	86 811	8.2	34	4.7	1 670	9.1	82 141	7.6
Jefferson -----	88	2.1	8 547	1.3	479 658	1.1	9	4.2	454	.2	22 938	.5
Josephine -----	3	18.3	(D)	(D)	3 258	17.8	5	11.5	277	20.1	16 283	20.0
Klamath -----	70	3.0	7 842	2.0	595 214	1.9	123	2.7	37 315	1.2	3 360 204	1.0
Lake -----	5	13.1	390	11.9	8 718	11.2	4	9.4	427	7.3	34 815	7.4
Lane -----	62	1.8	6 467	.8	550 266	.7	3	8.1	109	2.7	(D)	(D)
Lincoln -----	—	—	—	—	—	—	—	—	—	—	—	—
Linn -----	142	1.6	13 130	.8	1 020 376	.8	10	7.7	291	5.8	12 099	9.3
Malheur -----	367	1.4	36 677	1.0	3 014 051	.8	164	1.7	6 670	1.5	446 778	1.3
Marion -----	291	1.3	20 775	.8	1 745 381	.9	14	5.9	277	5.1	12 242	5.6
Morrow -----	145	.9	148 381	.3	5 620 603	.5	29	—	3 027	—	89 427	—
Multnomah -----	10	6.3	1 758	.9	162 885	.9	9	5.8	817	3.6	55 593	3.4
Polk -----	140	1.6	18 473	1.2	1 326 524	1.1	11	5.8	409	7.0	23 515	6.7
Sherman -----	128	.7	103 555	.3	3 580 569	.2	97	.8	21 227	.1	885 767	.1
Tillamook -----	—	—	—	—	—	—	—	—	—	—	—	—

See footnotes at end of table.

## C-20 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested											
	Wheat for grain							Barley for grain				
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
Umatilla -----	397	.9	268 523	.3	13 626 966	.3	130	1.4	12 134	.5	552 070	.9
Union -----	184	1.7	36 790	1.2	2 327 207	1.3	109	2.1	9 705	1.9	542 725	1.6
Wallowa -----	75	2.0	12 174	1.4	714 284	1.4	77	2.1	11 615	1.5	830 993	1.9
Wasco -----	109	1.2	75 331	.2	3 244 203	.2	33	.7	3 668	.5	163 674	.7
Washington -----	225	1.6	24 743	1.0	2 109 209	1.1	34	4.6	1 149	6.0	51 686	5.5
Wheeler -----	4	—	1 292	—	(D)	—	1	—	(D)	—	(D)	—
Yamhill -----	233	1.4	25 983	1.1	1 910 879	1.0	31	3.4	980	1.7	48 750	2.5
Selected crops harvested —Con.												
Geographic area	Oats for grain							Hay —alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)				
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, dry	Relative standard error of estimate (percent)
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	—	Relative standard error of estimate (percent)
Oregon -----	810	1.1	38 241	1.1	2 950 737	1.2	12 066	1.0	872 535	.6	2 276 437	.6
Baker -----	4	9.4	103	9.1	7 779	3.3	361	2.0	59 498	1.0	138 898	1.0
Benton -----	22	5.2	1 466	2.1	102 899	1.6	225	1.7	10 833	1.8	23 555	1.8
Clackamas -----	71	3.1	1 963	4.2	142 675	4.7	938	1.2	20 407	1.5	42 678	1.5
Clatsop -----	—	—	—	—	—	—	111	2.1	4 920	2.7	9 282	3.9
Columbia -----	6	6.4	349	2.9	29 596	2.4	342	1.3	11 749	1.6	24 497	1.9
Coos -----	1	29.9	(D)	(D)	(D)	(D)	262	1.7	12 405	1.7	27 932	1.7
Crook -----	3	15.3	140	9.8	(D)	(D)	256	1.5	26 506	1.1	75 265	1.0
Curry -----	1	33.1	(D)	(D)	(D)	(D)	34	3.6	1 079	2.5	2 639	2.8
Deschutes -----	4	13.5	44	14.0	(D)	(D)	471	1.7	15 630	3.2	42 491	2.7
Douglas -----	14	6.4	685	15.1	46 228	16.4	808	1.2	32 036	1.2	62 413	1.3
Gilliam -----	2	—	(D)	—	(D)	—	27	2.5	2 800	1.4	8 596	1.1
Grant -----	1	—	(D)	—	(D)	—	211	1.3	35 090	.4	51 804	.6
Harney -----	6	8.4	359	1.5	40 835	1.6	276	1.3	81 405	.5	153 708	.7
Hood River -----	—	—	—	—	—	—	135	2.6	2 021	3.7	5 410	4.2
Jackson -----	7	10.1	25	9.1	652	6.5	676	1.3	18 600	1.8	40 442	2.3
Jefferson -----	2	—	(D)	—	(D)	—	172	1.8	13 424	1.5	39 139	1.8
Josephine -----	1	21.0	(D)	(D)	(D)	(D)	281	1.5	7 224	2.0	18 604	2.1
Klamath -----	47	3.5	6 448	2.7	613 123	2.9	465	2.4	71 064	1.8	233 975	1.8
Lake -----	9	4.7	1 750	3.1	173 777	3.3	204	1.4	93 540	.6	215 486	.8
Lane -----	31	3.6	1 744	2.3	117 666	2.7	731	1.2	26 403	1.3	48 152	1.3
Lincoln -----	1	19.6	(D)	(D)	(D)	(D)	82	2.6	3 224	4.6	3 959	3.8
Linn -----	48	3.2	1 478	4.1	103 700	4.0	686	1.3	25 231	1.5	54 318	2.0
Malheur -----	31	3.6	486	2.7	39 376	3.5	694	1.2	62 677	.7	176 798	.9
Marion -----	102	2.4	3 091	3.3	244 570	3.6	625	1.3	24 658	.9	62 253	.6
Morrow -----	—	—	—	—	—	—	120	1.8	44 175	.7	270 785	.5
Multnomah -----	2	17.5	(D)	(D)	(D)	(D)	134	2.5	3 459	3.2	6 673	3.5
Polk -----	72	2.6	3 648	2.8	234 026	2.9	359	1.4	11 270	1.8	25 026	1.6
Sherman -----	5	—	341	—	19 216	—	20	3.5	1 962	1.1	5 942	.7
Tillamook -----	—	—	—	—	—	—	98	1.8	6 471	.9	17 351	1.0
Umatilla -----	5	—	111	—	11 315	—	366	1.4	26 724	1.5	110 734	1.0
Union -----	27	3.8	549	3.0	36 509	2.6	439	1.3	31 967	1.1	66 762	1.2
Wallowa -----	10	6.8	190	3.6	14 550	2.9	232	1.4	30 026	1.0	84 233	1.2
Wasco -----	6	9.5	173	7.0	8 602	4.7	162	1.7	10 530	1.2	25 493	1.2
Washington -----	155	2.0	8 060	2.1	597 740	2.3	468	1.3	15 742	1.6	40 967	1.7
Wheeler -----	1	33.1	(D)	(D)	(D)	(D)	72	1.4	9 466	.5	15 230	.9
Yamhill -----	113	1.9	4 575	2.4	334 340	2.6	523	1.2	18 319	1.1	44 947	1.1
Selected crops harvested —Con.												
Geographic area	Vegetables harvested for sale (see text)							Land in orchards				
	Farms		Acres		Farms		Acres		Farms		Acres	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Oregon -----	1 509	.8	147 616	.2	4 200	1.0	96 166	.7	58	14.8	—	—
Baker -----	1	37.5	(D)	(D)	15	8.5	792	3.6	—	—	—	—
Benton -----	61	2.7	8 842	.2	117	2.3	6 243	2.4	—	—	—	—
Clackamas -----	129	2.2	6 667	.8	374	1.6	10 4	3.3	—	—	—	—
Clatsop -----	3	15.1	(D)	(D)	3	10.4	—	—	—	—	—	—
Columbia -----	13	5.0	366	1.1	43	3.7	190	—	—	—	—	6.7
Coos -----	10	9.2	73	11.9	40	4.3	104	—	—	—	—	6.5
Crook -----	1	—	(D)	—	—	—	—	—	—	—	—	—
Curry -----	6	11.6	4	17.2	10	8.7	77	—	—	—	—	17.3
Deschutes -----	2	27.0	(D)	(D)	4	15.2	12	—	—	—	—	20.8
Douglas -----	46	4.0	539	4.3	213	2.1	2 013	3.1	—	—	—	—
Gilliam -----	—	—	(D)	(D)	4	13.8	(D)	—	—	—	—	—
Grant -----	1	40.0	(D)	(D)	9	9.6	316	2.3	—	—	—	—
Harney -----	—	—	—	—	—	—	—	—	—	—	—	—
Hood River -----	12	8.4	39	4.4	365	1.3	14 696	.9	—	—	—	—

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-21

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.							
	Vegetables harvested for sale (see text)				Land in orchards			
	Farms		Acres		Farms		Acres	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Jackson -----	64	3.4	534	11.6	180	2.1	10 270	.6
Jefferson -----	16	4.7	677	4.1	1	42.3	(D)	(D)
Josephine -----	27	5.3	68	9.8	66	3.2	1 062	1.9
Klamath -----	2	22.1	(D)	(D)	5	10.6	18	14.1
Lake -----	-	-	-	-	6	11.5	16	13.5
Lane -----	118	2.2	7 379	.6	368	1.5	4 921	1.6
Lincoln -----	7	12.2	8	16.9	15	6.6	131	39.9
Linn -----	84	2.3	9 518	.9	145	2.3	2 002	1.8
Malheur -----	150	1.1	11 659	.4	16	6.1	391	8.0
Marion -----	304	1.1	40 037	.3	452	1.5	9 479	1.9
Morrow -----	12	4.1	6 699	2	5	8.0	(D)	(D)
Multnomah -----	63	3.1	3 549	1.6	73	3.3	253	4.2
Polk -----	32	3.3	2 737	1.0	231	1.7	6 410	1.5
Sherman -----	-	-	-	-	5	8.7	22	9.8
Tillamook -----	1	-	(D)	-	1	30.3	(D)	(D)
Umatilla -----	116	1.8	33 744	.3	221	2.0	5 079	1.8
Union -----	9	8.4	35	8.8	49	4.4	801	6.3
Wallowa -----	6	12.5	68	12.1	6	10.3	14	17.5
Wasco -----	4	14.8	(D)	(D)	125	1.9	7 166	.6
Washington -----	123	2.2	6 563	1.5	487	1.3	9 372	1.7
Wheeler -----	1	-	(D)	-	4	10.7	27	16.3
Yamhill -----	85	2.0	7 511	.5	542	1.2	12 549	1.3

<sup>1</sup>Data are based on a sample of farms.

**Table G. State Estimates of the Not on the Mail List Component of Farm Coverage Error:  
1992**

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Census published farms		Not on mail list <sup>1</sup>		Percent not on mail list <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (number)	Relative standard error of estimate (percent)	Total (percent)	Standard error of percent
Farms ----- number	31 892	1.0	7 437	15.6	18.9	2.5
Land in farms ----- acres	17 609 497	.2	348 950	29.2	1.9	.6
Average size of farm ----- acres	552.2	.8	46.9	27.0	(X)	(X)
Farms by size:						
Less than 10 acres -----	6 319	1.2	3 926	19.5	38.3	4.8
10 to 49 acres -----	11 235	1.1	2 175	24.6	16.2	3.5
Less than 50 acres -----	17 554	1.1	6 101	17.5	25.8	3.6
50 acres or more -----	14 338	.9	1 336	30.7	8.5	2.4
50 to 99 acres -----	3 904	1.2	277	64.3	6.6	3.9
100 to 179 acres -----	2 844	1.2	544	45.6	16.0	6.1
180 acres or more -----	7 590	.8	515	51.2	6.4	3.0
Harvested cropland ----- farms	20 743	.9	3 345	19.3	13.9	2.4
acres	2 823 972	.4	29 106	34.0	1.0	.3
Farms by value of sales:						
Less than \$1,000 -----	5 727	1.2	3 248	27.4	36.2	6.3
\$1,000 to \$2,499 -----	5 763	1.2	1 600	32.3	21.7	5.5
Less than \$2,500 -----	11 490	1.2	4 848	22.6	29.7	4.7
\$2,500 or more -----	20 402	.9	2 589	22.6	11.3	2.3
\$2,500 to \$9,999 -----	8 303	1.2	1 718	30.1	17.1	4.3
\$10,000 or more -----	12 099	.9	871	44.7	6.7	2.8
Market value of agricultural products sold    ---\$1,000 ---	2 292 973	.3	27 795	27.4	1.2	.3
Farms by standard industrial classification:						
Crops (01) -----	12 738	.9	1 815	29.3	12.5	3.2
Livestock (02) -----	19 154	1.0	5 574	17.2	22.5	3.2
Farms by type of organization:						
Individual or family -----	27 506	1.0	6 899	16.7	20.1	2.8
Partnership or corporation -----	4 153	.8	538	65.9	11.5	6.7
Other -----	233	1.7	—	(X)	—	(X)
Farms by tenure of operator:						
Full owners -----	22 152	1.0	5 679	16.7	20.4	2.9
Part owners and tenants -----	9 740	.8	1 757	38.0	15.3	5.0
Part owners -----	7 004	.8	787	45.6	10.1	4.2
Tenants -----	2 736	1.2	970	46.5	26.2	9.0
Operators by place of residence:						
On farm operated -----	26 714	1.0	6 616	16.2	19.9	2.7
Not on farm operated -----	3 730	1.1	561	58.3	13.1	6.7
Not reported -----	1 448	1.1	259	49.9	15.2	6.4
Operators by principal occupation:						
Farming -----	15 306	.9	2 111	28.4	12.1	3.1
Other -----	16 586	1.1	4 738	21.8	22.2	3.9
Operators by sex:						
Male -----	27 967	.9	6 490	16.2	18.8	2.6
Female -----	3 925	1.1	899	43.3	18.6	6.6
Operators by race:						
White -----	31 391	1.0	6 764	16.2	17.7	2.5
Black and other races -----	501	1.4	86	74.2	14.6	9.3
Operators by years on present farm:						
4 years or less -----	4 860	1.4	1 946	24.7	28.6	5.2
5 years or more -----	23 387	.9	4 383	21.0	15.8	2.9
Average years on present farm -----	16.7	1.3	15.7	26.3	(X)	(X)
Not reported -----	3 645	1.0	1 109	35.8	23.3	6.5
Average age of operator -----	53.4	.1	56.2	17.3	(X)	(X)

NOTE: These estimates do not account for incorrectly classified farms or farms appearing more than once in the census and are subject to change in the 1992 Coverage Evaluation publication. See appendix C text for further explanation.

<sup>1</sup>Estimates are based on a sample survey conducted independently of census data collection.